

SCHOOL MANAGEMENT

PRACTICAL SOLUTIONS TO SCHOOL MANAGEMENT PROBLEMS

HOW THE FORD FUND MAKES A GRANT

If
you're
thinking
about a
summer
session



*A better way to
house a high school*

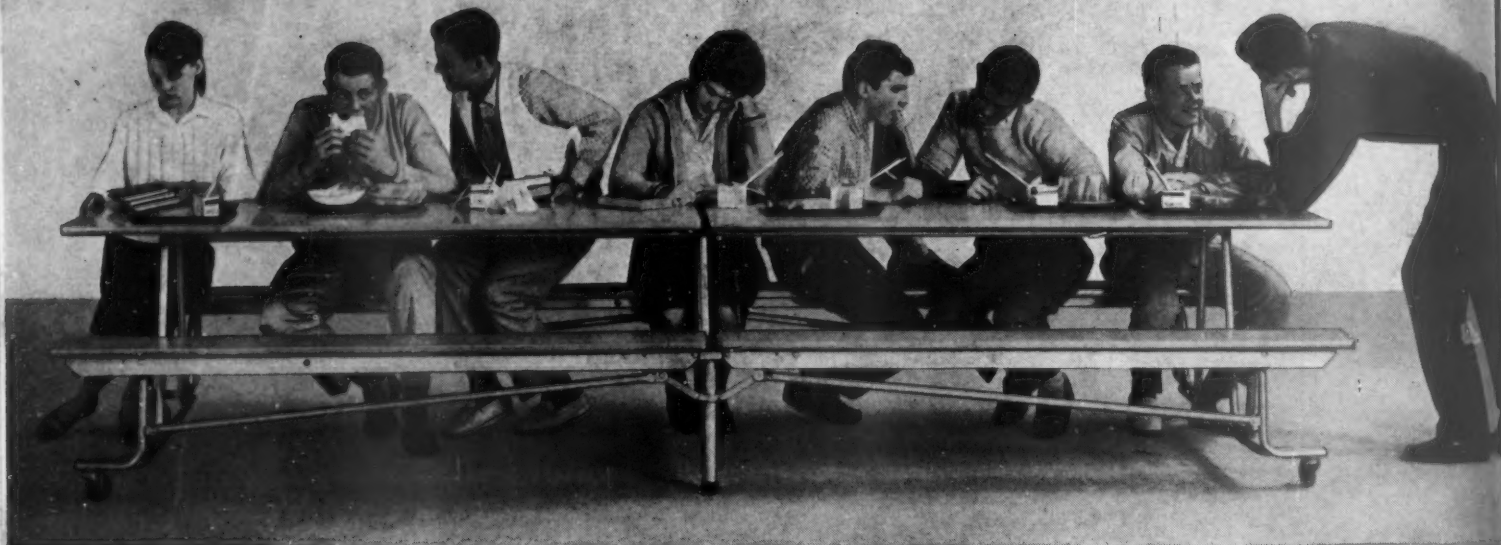
**A PORTFOLIO OF
"LITTLE SCHOOL"
PLANS**



HOW TO HANDLE TRUANTS

SEE COMPLETE CONTENTS ON PAGE 3

ERICKSON TABLES ARE BUILT FOR RUGGED USE!*



Double steel framing under the benches and under the top. Pivot points anchored in metal —can't pull out. Tough NEMA plastic tops pressure-bonded to solid $\frac{3}{4}$ " core material.

WE MAKE 50 MODELS SO YOU CAN CHOOSE the perfect table to fit your needs. You get the widest choice in the industry with Erickson . . . portables, plus recess-wall and on-wall portables . . . with benches or without . . . 6, 7, 8, 10, 12 and 14 footers, many types of tops. Ericksons are simple to fold, easy to store.

**Yet, priced to fit today's budgets.*

Circle no. 726 on reader service card for new catalog.

SLIMMEST FOLDING TABLES MADE! Erickson tables fold to 7½" — half the depth of other makes. Note that benches fold level with tops — it's simpler and it saves space.

MORE PLANNING FREEDOM. By nesting four, you can store 24 feet of table space in an Erickson cabinet just over 3 feet high. No need to plan the building around the table — when there's an Erickson for every plan.

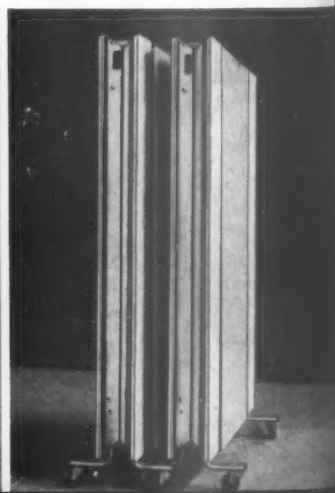
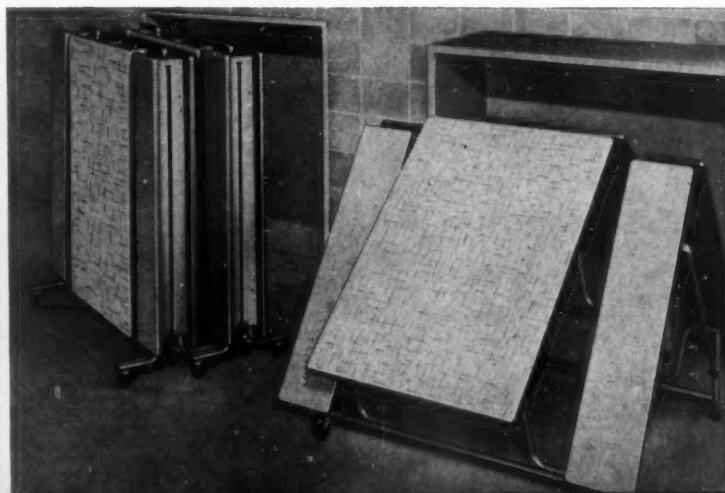
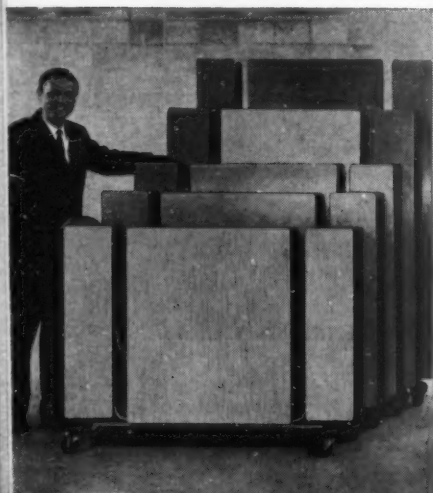
THE ERICKSON PRODUCTS DIVISION OF

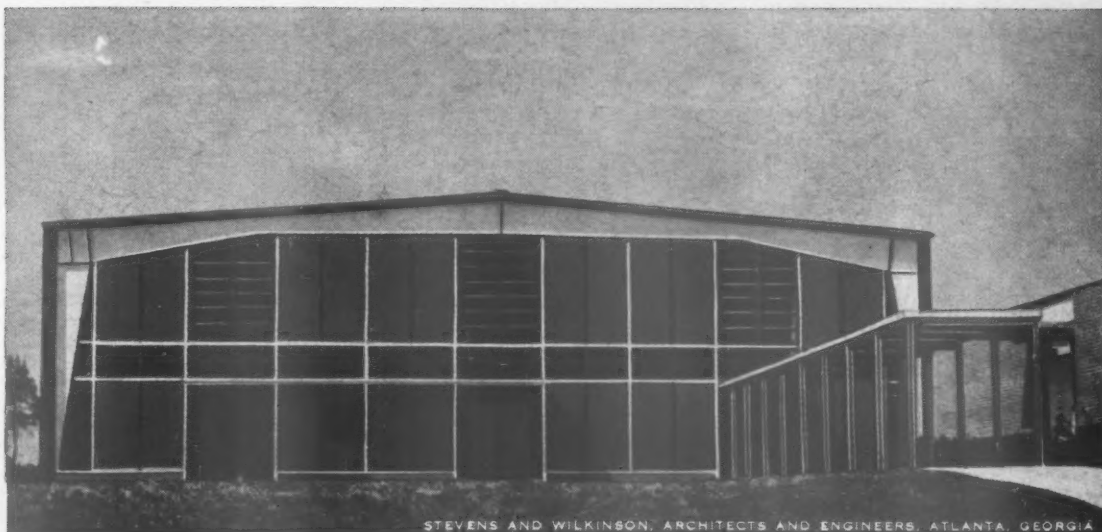
Hamilton

MFG. COMPANY, TWO RIVERS, WISCONSIN

Manufacturers of Educational Equipment for Science, Home Making, Libraries and Arts & Crafts.

ERICKSONS LOCK TIGHT, NEST RIGHT. Ericksons fold flat for snug space-saving storage. Positive position locks prevent "surprise" openings, and there's no teeter-totter when extended.





STEVENS AND WILKINSON, ARCHITECTS AND ENGINEERS, ATLANTA, GEORGIA

A BUTLER BUILDING EXCLUSIVE...CHOICE OF TWO SUPERIOR WALL PANELS IN COLOR



Better-than-ever Butler buildings ...bring a new look to gyms

A glance at the gymnasiums above shows you why Butler buildings have been so widely used in this type of construction.

Interiors are spacious, clear and unobstructed. Exteriors are simple but pleasing... lend themselves to a wide variety of architectural treatments. This, plus the inherent economies of Butler pre-engineering and mass production, has all contributed to the increasing use of Butler buildings for gyms.

And now, with two new cover panels to choose from, Butler brings a new look to gyms... sets a new standard of quality for pre-engineered construction. Butlerib is the strongest, the most rigid—most weathertight cover ever offered as standard construction on Butler buildings. Monopanl, Butler's pre-

mium cover, is the first factory-fabricated, factory-insulated panel designed for a pre-engineered structural system. With Monopanl, exterior walls are complete inside and out, go up faster... provide greater protection.

Both Butlerib and Monopanl feature unique, distinctive corrugations that create bold, beautiful sculptured outside walls with pleasing shadow lines.

Exclusive with Butler, these panels are available in a selection of attractive, factory-applied colors or in a natural aluminum finish.

There's no doubt about it! Better-than-ever Butler buildings do bring a new look to gyms. For full details consult your Butler Builder today. He's listed in the Yellow Pages under "Buildings" or "Steel Buildings." Or writedirect.

BUTLER MANUFACTURING COMPANY

7520 East 13th Street, Kansas City 26, Missouri



Manufacturers of Metal Buildings • Equipment for Farming, Oil Transportation, Outdoor Advertising • Contract Manufacturing
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Burlington, Ontario, Canada

(Circle number 711 for more information)



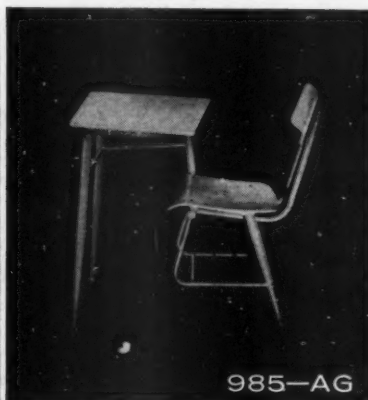
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Researched, Designed, Engineered, and Manufactured to the needs of the pupil, teacher, and administrator. Quality in school and auditorium furniture is made up of many things — superior materials, exceptional design, top engineering, skilled craftsmanship, and tight quality control. Griggs Comfort-Engineering-Research,

through test after test, provides all of these features in a complete line of the finest school and auditorium furniture available—Griggs Comfort-Engineered Furniture—a comfortable, functional, long-lasting investment for your school because...you're buying proven quality. Write today for further information.



GRIGGS EQUIPMENT, INC., BELTON, TEXAS

PLANTS AT BELTON, TEXAS AND SELMA, N. C.

(Circle number 725 for more information)

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MEMO FROM THE EDITOR

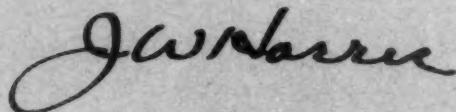
GOING TO ATLANTIC CITY?

If you plan to be at the A. A. S. A. Meeting on February 14th, please stop by to see our editors in Booth 1203.

Talking to our readers is the best method we have for uncovering fresh, new editorial ideas.

If your district has developed anything original or effective in the way of a solution to a school management problem, we hope you will share it with us (whether you go to Atlantic City or not).

Cordially,



P.S. We are particularly anxious to talk with folks who can tell us how they are solving these two pressing problems:

- 1) fewer clerical chores for teachers
- 2) more flexible high school scheduling.

SCHOOL MANAGEMENT

22 West Putnam Ave., Greenwich, Conn.

Volume 4

Number 2

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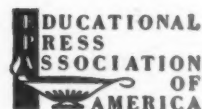
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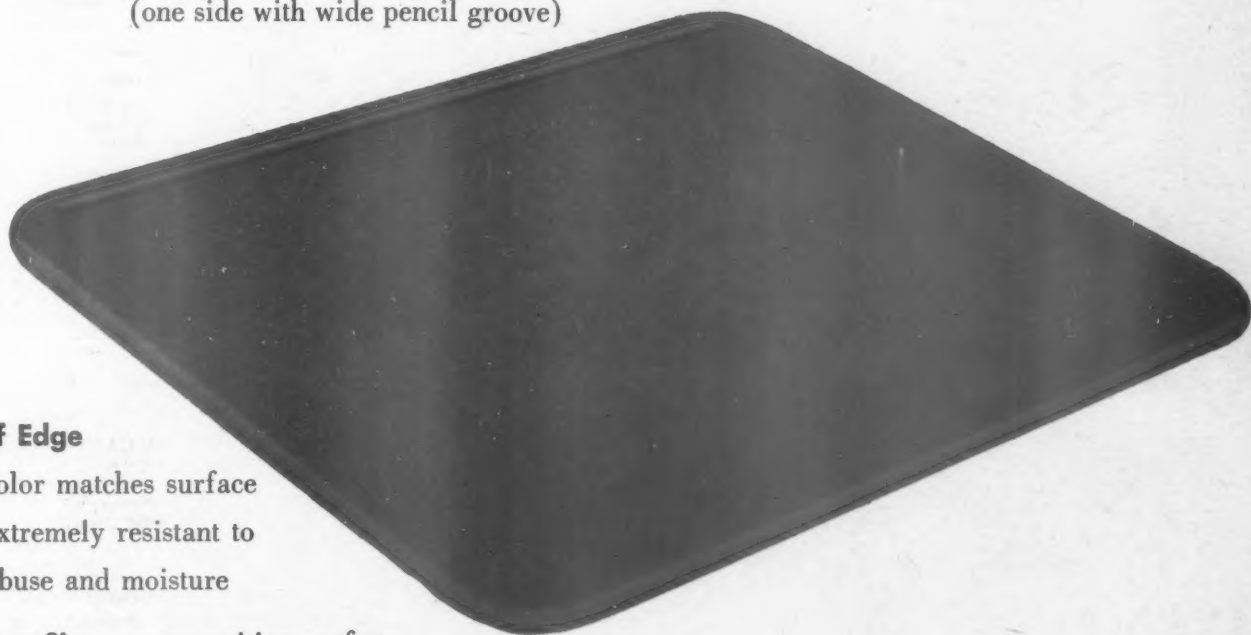
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(one side with wide pencil groove)



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(Circle number 772 for more information)



Saves Teachers, Saves Time, Saves Lives

Drivotrainer program dedicated to better driver education in schools

Rockwell Manufacturing Company now extends its service to schools by manufacturing and distributing the Aetna Drivotrainer, the classroom driver training aid developed as a public service by the Aetna Casualty and Surety Company. In developing the Drivotrainer, Aetna called upon nationally known educators for assistance and counsel. Working closely with this panel of experts, Aetna invested considerable time, effort and funds in perfecting the Drivotrainer system of driver education. Now, its classroom effectiveness fully documented by responsible educators, the Drivotrainer is in use in schools from coast to coast.

In producing the Drivotrainer, Rockwell draws upon the same sound engineering and manufacturing skills that have won for Delta Power Tools a place in 72% of U.S. school shops, and that have made Rockwell measurement and control instruments the standards of quality in their fields.

The Drivotrainer permits students to "drive" through all kinds of situations without ever leaving the classroom—and without

risk to life or property. Its three chief advantages to schools are:

Better educational values, because Drivotrainer teaches basic driving skills, develops safe driving attitudes and better driving judgment through exposing the student to more traffic situations than he could experience in a similar period of on-the-road training.

Lower per-pupil costs, because Drivotrainer multiplies the number of students that can be taught, *without* increasing the teaching staff, and greatly reduces the number of hours needed for dual control on-the-road instruction.

Higher level of student proficiency, because Drivotrainer drills students to react instantaneously and *correctly* to emergencies—the real test of driving ability.

It is a source of satisfaction to manufacture a product whose ultimate use can only result in safer living for everyone. For further information on the Drivotrainer and Deferred Sales Plan, write: Rockwell Manufacturing Co., AVM Division, Dept. 405B, Pittsburgh 8, Pa.

Drivotrainer systems similar to the one shown here are in use in schools throughout the country to instruct teen-agers in safe driving. The U.S. Air Force employs the Drivotrainer in the retraining of experienced drivers.



(Circle number 751 for more information)

Here's Science On Wheels For The Elementary Classroom

PORTABLE SCIENCE DESK



Now **any** classroom can be made into a small laboratory with this unique portable science desk. It's completely self contained with no connections required. Shipped knocked down for easy assembly with only a Phillips head screw driver.

Specifications include: 54" long x 28" wide x 35" high, tackboard display center on rear, high pressure laminate plastic top, 12" x 14" x 6" stainless steel sink with pump faucet, two-2½ gal. polyethylene bottles for water and waste, Bunsen burner and fuel tank with stand, two adjustable shelves, two fibre glass apparatus trays, electrical receptacle with 15' of cord and removable apparatus rod. Available in standard Flight Sweep Colors.



See our Exhibit of Homemaking, Science, Arts and Crafts at the Atlantic City AASA Convention. Booths 1422 to 1426, February 13th to 17th.

CLIP

GENTLEMEN: I am interested in obtaining free information on your Portable Science Desk.

Name _____

Title _____

School _____

Address _____

City _____ State _____

Dept. (SM)

R

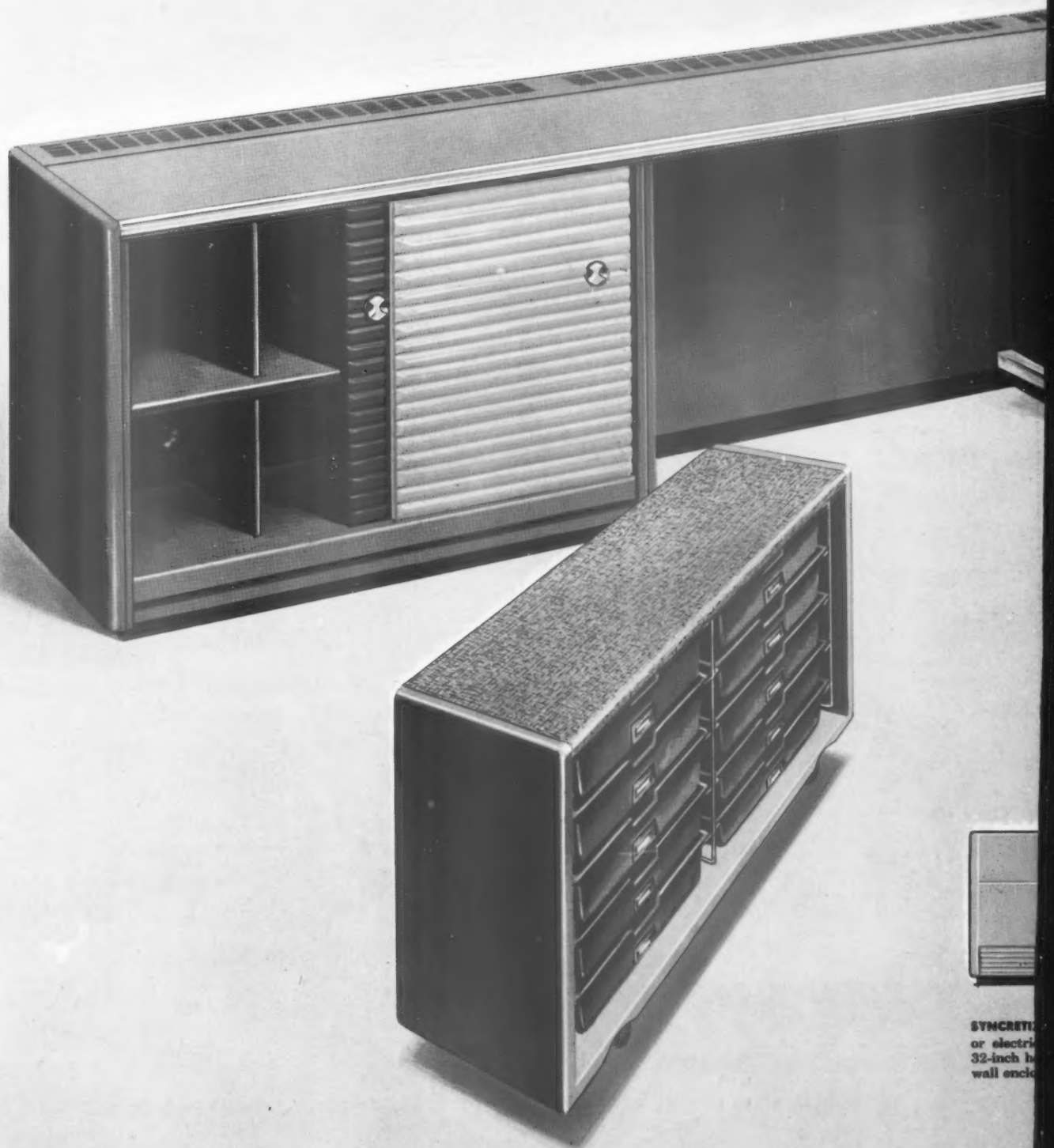
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"ROYAL of Richmond"

(Circle number 752 for more information)

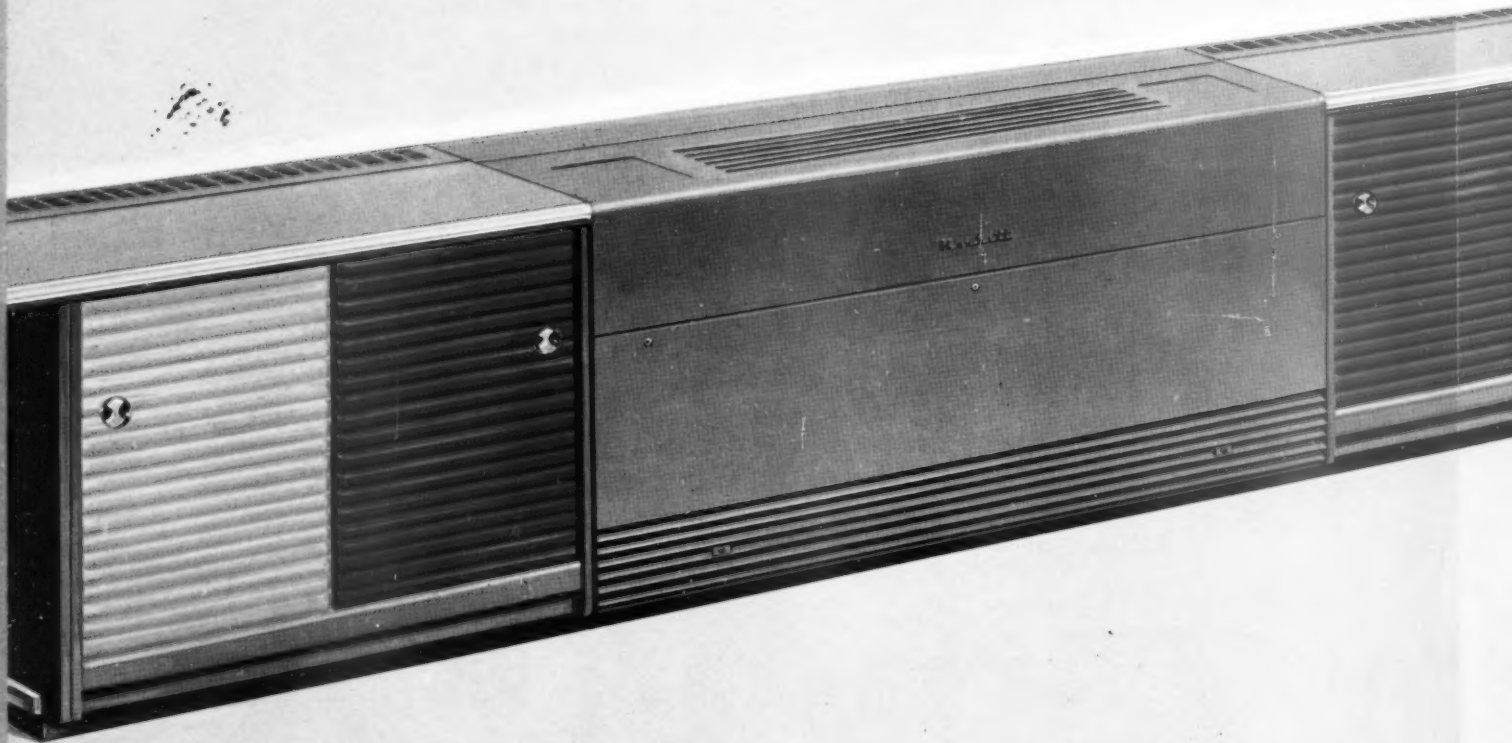
NESBITT COMFORT *plus*



SYNCRETIC
or electric
32-inch h
wall enclo

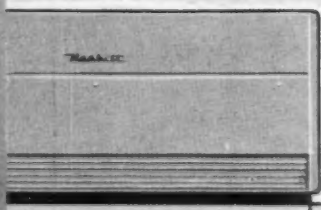
tear it out along the perforated line

*a **NEW HIGH** in Styling and Functional*

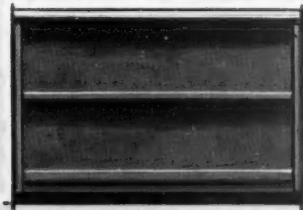


**The heating and ventilating system
that sets a new standard of classroom comfort
now widens the scope for design and instruction**

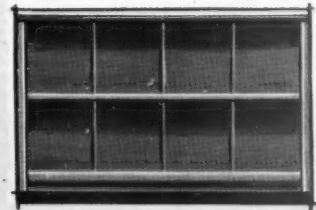
See the new 600 Line at the A.A.S.A. Convention —



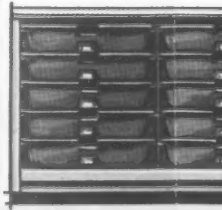
WIND-O-LINE VENTILATOR: for steam, hot water, models, 500 to 1500 cfm; 28- and 32-in. height; mates with Wind-o-line radiation in storage cabinets.



ADJUSTABLE SHELF CABINETS: maximum storage utility; open or closed; fixed or mobile; 3- or 4-ft. length; 28- or 32-in. height.

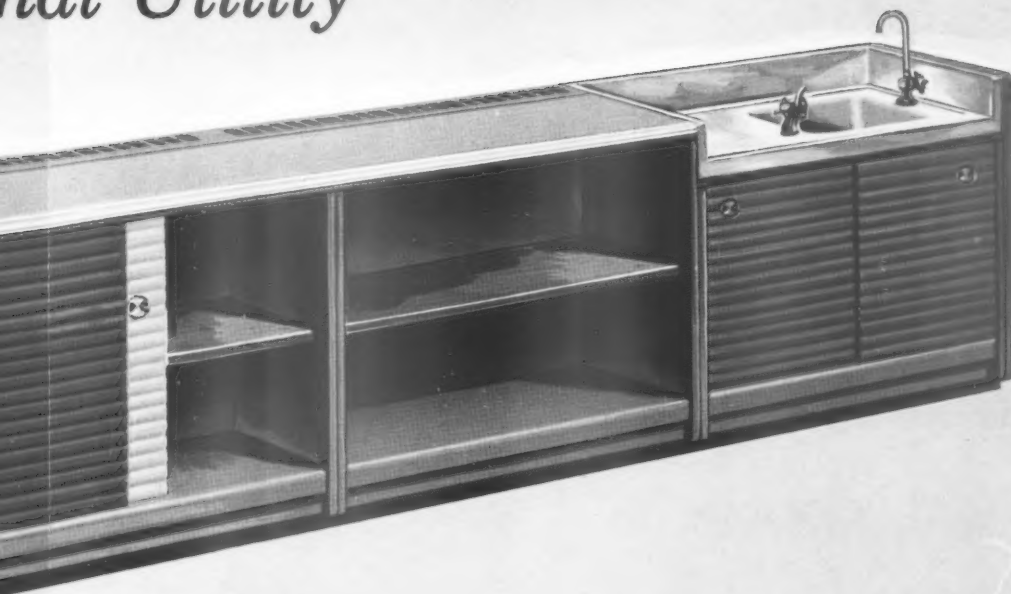


CUBICLE CABINETS: sectioned for project storage; open or closed; fixed or mobile; 3- or 4-ft. length; 28- or 32-in. height.



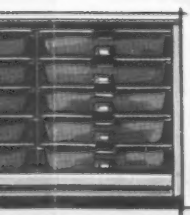
NOTE TRAY CABINETS: small fiber-glass trays; closed; fixed or mobile; 3- or 4-ft. length; 28- or 32-in. height.

nal Utility



Who knows what tomorrow will bring forth in the art of teaching? Educators, including teachers, administrators and educational planners, envision more flexible classrooms with versatile storage facilities as one of the indispensable aids to the pursuit of scholastic excellence. The first storage cabinets to be integrated with the unit ventilator and thus to make full use of the window wall were introduced by Nesbitt in 1938. For the soaring '60s, Nesbitt presents wholly new designs, colors and accents in the Syncretizer unit ventilator, Wind-o-line radiation, and integrated storage facilities—with more spacious fixed and mobile units—for the most rewarding combination of classroom comfort and convenience.

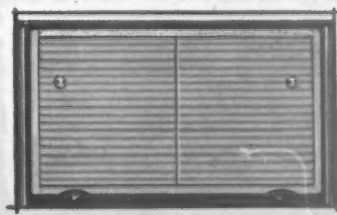
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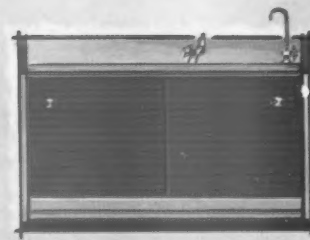
CABINETS: large or glass trays; open or mobile; 4-ft. only; height.



MOBILE CABINETS: available with interchangeable tote trays, cubicles, or adjustable shelf; open or closed; 4-ft. only; 28- or 32-in. height.



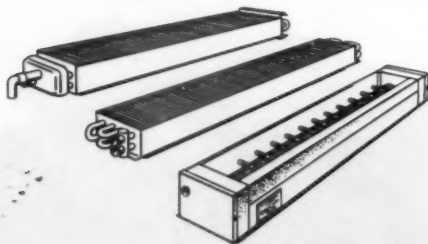
SEPARATE STALLS OR MOBILES: any number of stalls, providing useful sun-board work space, may be bought initially and the mobiles added later.



SINK-BUBBLER: stainless steel top; 24- and 28-in. heights; separate bubbler if desired; 4-ft. length; closed storage compartment.

Worth Noting: Features of the Nesbitt Syncretizer Heating and Ventilating System

EFFICIENT HEATING ELEMENTS

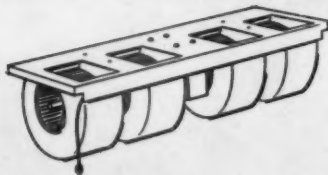


FOR STEAM—with “trombone” distributing tubes that assure uniform discharge temperatures at all times.

FOR HOT WATER—with 4-pass and 8-pass circuiting for maximum heating economy from small water quantities.

FOR ELECTRICITY—with 5, 7, or 9 finned tubular elements for safe, rapid heat transfer and metered economy.

LIFETIME MOTOR AND FAN ASSEMBLY



QUIET FANS—direct-mounted and balanced on a solid steel motor shaft without outboard bearings, couplings, etc.

SERVICE FREE MOTOR—totally enclosed, quiet, variable speed, split-capacitor type, with no internal starting switch; only one moving part; oiling but once a year.

ONE-PIECE ROLL DAMPER



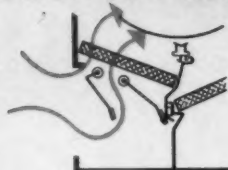
UNIQUE—the simplest known method of regulating the air mixture in a unit ventilator; pivots on two nylon bearings under automatic control; requires no maintenance.

SEPARATE EASY-ACCESS FILTERS



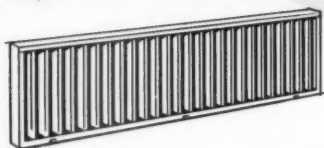
FOR GOOD MAINTENANCE—simply lower the room-air grille and the indoor-air filter drops for removal; open an access door and the outdoor-air filter pops to hand; divided large-area filters save money; easy access encourages regular cleaning or replacement.

OUTDOOR AIR-VOLUME STABILIZERS



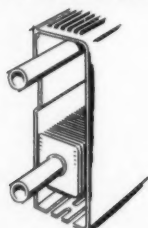
ECONOMICAL—two pivoted vanes in the outdoor air compartment close progressively under wind pressure so that only the required amount of fresh air can enter; saves up to 50% fuel on windy days and stops cold blow-through.

WEATHERPROOF OUTDOOR AIR INTAKE



EXCLUSIVE—all-aluminum, only $2\frac{1}{8}$ inches deep, for pre-fabricated panel or masonry walls; Z-shaped vertical louvers make it load-bearing and prevent air-borne rain or snow from entering the incoming air stream.

WIND-O-LINE FINNED-TUBE RADIATION



ADDED PROTECTION—with the Nesbitt System, finned-tube radiation all along the window wall independently protects against downdraft and excessive radiation of body heat to cold surfaces. Working together, Nesbitt Syncretizer and Wind-o-line maintain “the thermal environment most conducive to learning.”

Nesbitt Comfort Conditioning: More Learning Per School Dollar

Introducing

THE

Wesbitt

600

LINE



**New Syncretizer
Unit Ventilator
and more versatile
Storage Units**

FOLD OUT

for a color preview of tomorrow's more flexible classroom facilities

Where to learn more about the New 600 Line

The following offices of John J. Nesbitt, Inc. (JJN) and American-Standard, Industrial Division (ASID) stand ready to assist you in the selection and application of Nesbitt Classroom Heating, Ventilating and Air Conditioning Equipment for your school. In Canada, Nesbitt Unit Ventilator products are available through the offices of American-Standard Products (Canada), Ltd.

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No complaints

Sir: We received our copies of SCHOOL MANAGEMENT which contained your story on government surplus (SM, Dec. '59). We want to congratulate you on the accuracy of this article and the excellent way it was presented. We have not received any letters protesting any of the statements, which attests to the accuracy of the article.

The donation program is continuing to grow and the excellent publicity it has received has been helpful.

J. WENDELL GRAY, CHIEF
SURPLUS PROPERTY UTILIZATION
DIVISION
DEPARTMENT OF HEALTH, EDUCATION,
AND WELFARE

A bargain

SIR: The incident relating to the \$163.39 school tax check written on the gent's shirt tail (*Bellyful*, SM, Nov. '59 pg. 25) has received a great deal of publicity or notoriety; whichever category one chooses to place it in.

This irate taxpayer has two children in school in Burnt Hills so I have been told. Two pupils times 5.5 hours per day times 180 days equals approximately 1980 pupil hours. \$163.39 divided by 1980 equals approximately 8¼¢ per hour for education, supervision, heat, light and perhaps transportation if his two offspring ride the bus. Frankly it would appear this parent is getting a wonderful bargain.

CLAYTON H. BROWN
SUPERINTENDENT OF SCHOOLS
FIRST SUPERVISORY DISTRICT OF
SARATOGA COUNTY
GREENFIELD CENTER, N. Y.

Ungraded primary reprints

SIR: We are all very appreciative of the magnificent way SCHOOL MANAGEMENT has put our efforts on the map, (*"The ungraded primary: has your staff considered it*, SM, Nov. '59). You are to be commended for your excellent presentation of our program . . .

I thought it would interest you to know that we have received inquiries from over the nation. Schools in Massachusetts, Illinois, Oklahoma, Indiana,

Pennsylvania, Iowa, Alaska, New York and South Dakota have asked for further information, and in one instance a superintendent from South Dakota has received authorization from his board to visit our program in March. A number of Oregon schools have already visited and more have requested permission to do so.

ALTON O. SMEDSTAD
SUPERINTENDENT
HILLSBORO, ORE.

■ Because of the great interest in the ungraded primary story, SCHOOL MANAGEMENT has arranged a special reprint of the full article. Copies are available at 75¢ each, up to five reprints. For orders of five to 15, the price is 60¢ apiece; 15 to 40, 50¢ apiece. Larger quantities are available and prices will be provided on request.

ED.

Educational blindness?

SIR: Your publication SCHOOL MANAGEMENT smacks of the usual blindness of educators, no criticisms or differences of opinions are permitted.

Educators like yourself are helping to take us down into the third-rate category for nations.

Whenever one citizen like Mr. Saricks speaks out (*"Lapping up education*," SM, Nov. '59, pg. 87) he is condemned. How many bartenders live the life of teachers (8½ months of work a year)?

It's not the teachers who are hurting but the poor taxpayer carrying your ivory palaces and high flung worthless ideas to sap the poor man's money.

A SCHOOL BOARD MEMBER

■ The above letter was signed "a school board member." We enjoy, invite and expect disagreement—but we must question the motives of schoolmen who are unwilling to identify themselves with a position on an open issue and wonder whether they act in the best interests of the children of their school district.

To set the record straight, the editors of SM are *not* educators but communicators. Our bias, if we have one, is on the side of good schools as we see them.

ED.



Old-fashioned shorthand is good enough for me!

Of course. It used to be good enough for everyone. There wasn't anything better. But there is now. The Stenograph shorthand machine. Modern stenography. Its superiority is becoming legend.

These are the facts. Schools teaching Stenograph shorthand report that students are more interested, failures quite rare . . . that Stenograph is far easier to learn and proficiency is developed 50% faster.

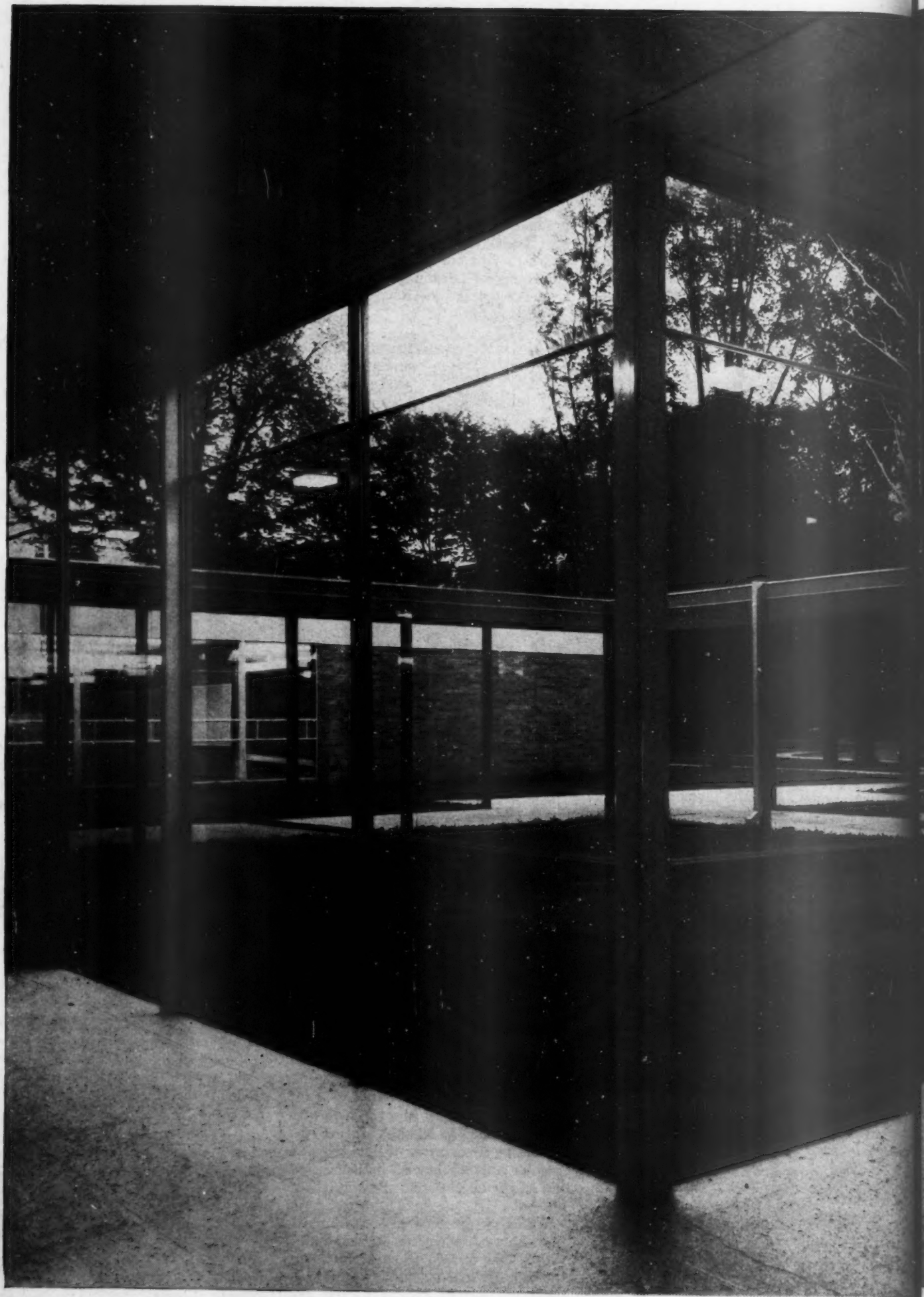
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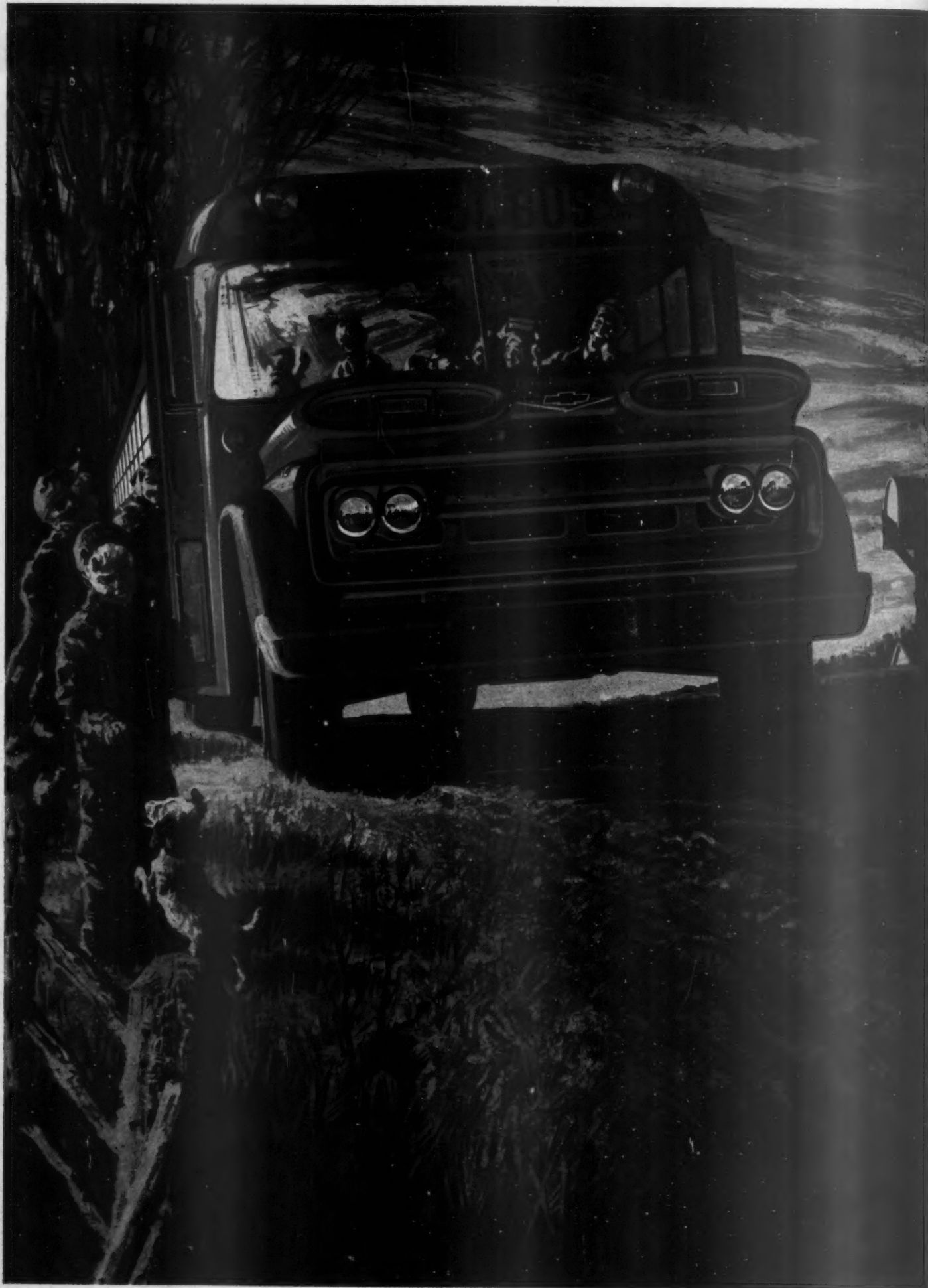
*Architects: Wakely-Kushner Assoc., St. Clair Shores, Mich.
Contractor: Petku Construction Co., Birmingham, Mich.
Glazed by City Glass Company, Detroit, Mich.*

Glass for light. Today's school architect designs with natural light. With glass, he builds walls of light . . . to enliven the routine of study, to bring the outdoors in and make going to school more inviting. Gordon Road Elementary School, St. Clair Shores, Michigan, is a case in point. It's the kind of school *you* would have enjoyed going to. Take a stroll around it, through it, you'll find glass everywhere . . . doing a job no other material can do. All of this glass was supplied by Pittsburgh Plate Glass Company.



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1960 CHEVROLET SCHOOL BUS CHASSIS SET NEW STANDARDS FOR SAFETY, RELIABILITY, ECONOMY

Chevy's totally new school bus chassis with Torsion-Spring Ride are setting totally new standards . . . for safety, by providing a new kind of handling ease . . . for reliability, by protecting body and components from the severe road pounding you get with ordinary chassis designs . . . for economy, by greatly reducing maintenance and replacement costs.

Take safety, for example. Chevy's entire school bus chassis lineup for 1960, including the new 66-passenger model, benefits from the remarkable new handling ease which stems from revolutionary Torsion-Spring Ride. On rough roads, over the highway or on traffic clogged city streets, drivers can exercise precise control never before possible. That's another reason why Chevrolet for '60 offers built-in passenger safety no other school bus chassis design can equal.

And Torsion-Spring Ride pays off in extra reliability, too. Each front wheel, suspended independently of the other, steps cleanly over bumps and ruts, to greatly reduce body-wracking road shock. At the same time, new friction-free torsion bars soak up all kinds of jolts from the smallest to the most severe. The amazingly smooth ride that results means longer component life and more dependable day-after-day service under all operating conditions.

And, when it comes to economy, a new Chevy school bus chassis with Torsion-Spring Ride *really* pays off. Because most body-damaging road shock is absorbed by the new suspension system and doesn't reach the body, you can be certain of big savings on maintenance and replacement costs. The fact is Chevrolet's new Torsion-Spring Ride has improved virtually all phases of school bus chassis performance to make your pupil transportation dollars go farther than ever before! . . . Chevrolet Division of General Motors, Detroit 2, Michigan.

THERE'S A NEW CHEVROLET SCHOOL BUS CHASSIS TO FIT YOUR TRANSPORTATION REQUIREMENTS . . . AND YOUR BUDGET.

SEE THEM ON DISPLAY AT THE AASA CONVENTION, ATLANTIC CITY, FEBRUARY 13-17.



(Circle number 713 for more information)



How Hussey Seats Solved West Point Space Problem

The problem: Getting necessary classroom seating plus adequate space for cadet experiments in the Concrete Testing Lab.

This problem concerned the optimum use of existing space. The solution could apply to space saving in new buildings at any school or institution.

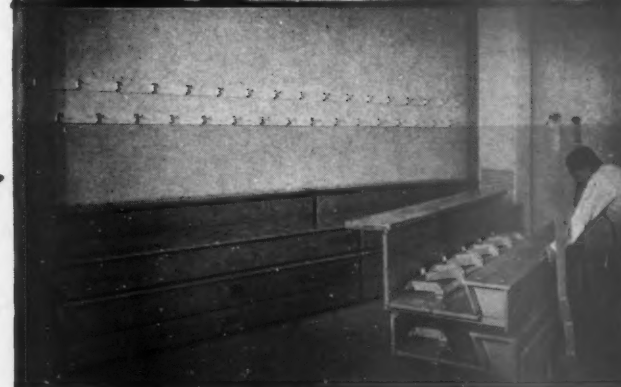
Walter Dorwin Teague Associates, Industrial Designers engaged by West Point, quickly saw fixed seating was too inflexible. They needed movable classroom seating that could be set up or stored quickly and easily. At that point, Carl Bauer, the Walter A. Braun Co. representative for Hussey Closed Deck Roll-Out gym seats, appeared.

Eureka! A new idea was forming. Could Hussey design tablet arm brackets for standard Roll-Out gym seats? Hussey could! Hussey did!

The 45 special tablet arm brackets are on three 8' long, 3-tier Hussey Closed Deck Roll-Outs. Spacing between rows is 24". These units can be moved into position ready for use, or returned to storage in 5 minutes.

1. Roll-Outs ready for classroom discussion. The completely closed deck is safe and prevents loss of articles under the seats.
2. Some tablet arms tilted for easy access to the seats, and the simple process of loosening a wing nut to remove the tablet arms.
3. The stored tablet arms and seats being rolled away on their dolly.

This typical case history of Roll-Out versatility may solve one of your problems. For other space saving ideas involving seating, write



Photos by Joseph W. Molitor



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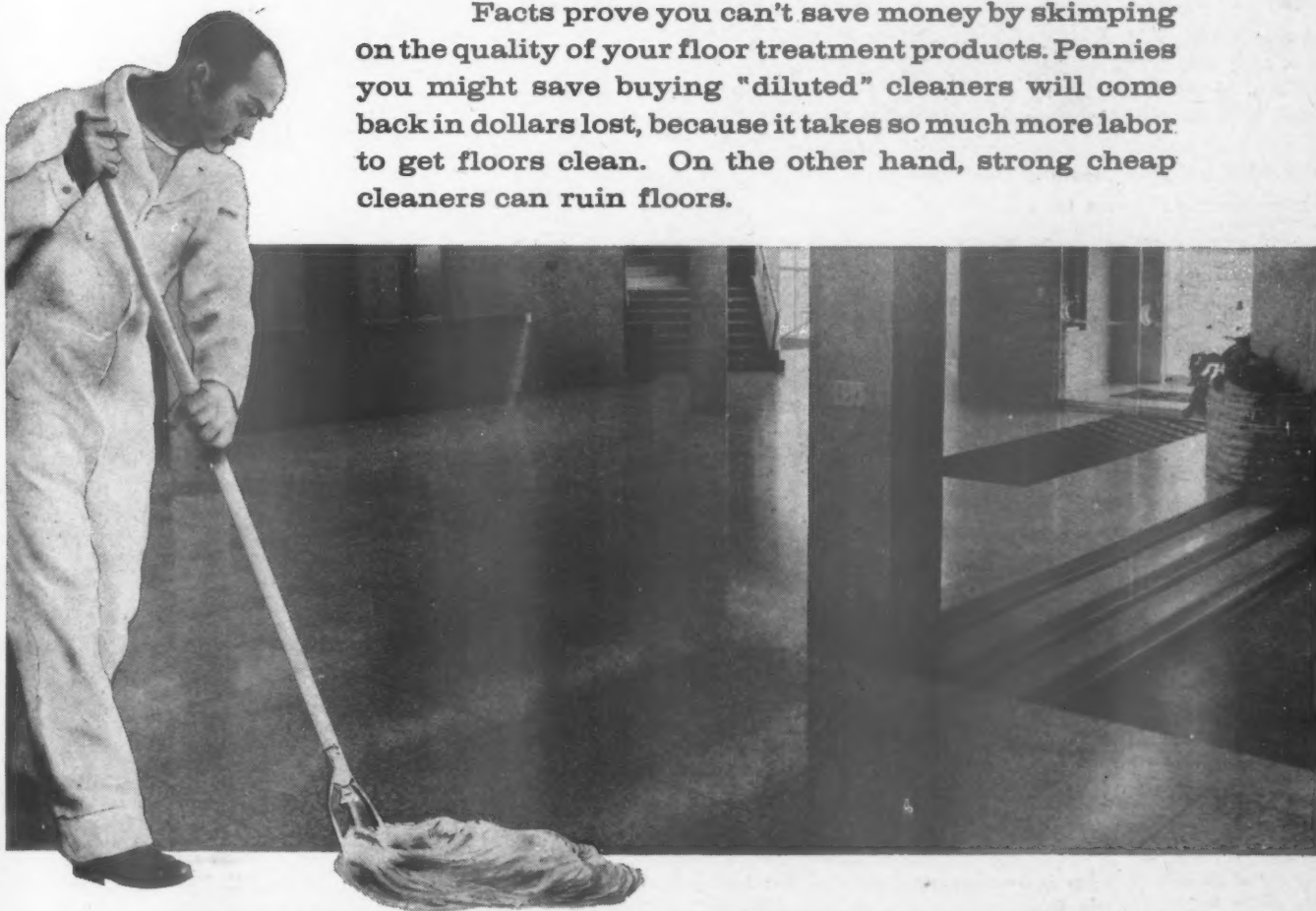


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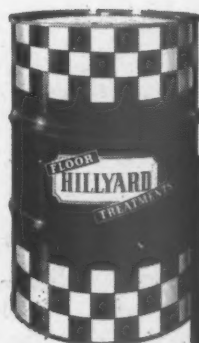
SUPER SHINE-ALL® cuts labor time; eliminates the whole step of rinsing in normal cleaning. Its extra cleaning quality neutralizes the toughest floor soil problems, without a trace of harm to finest flooring.  listed for slip resistance.

Facts prove you can't save money by skimping on the quality of your floor treatment products. Pennies you might save buying "diluted" cleaners will come back in dollars lost, because it takes so much more labor to get floors clean. On the other hand, strong cheap cleaners can ruin floors.



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YOURS FOR THE ASKING

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▼ **Audio visual.** Electronic help for all levels of education, ranging from amplifiers to television systems, are covered in "Electronic Aids to Education," a new catalog issued by the RCA Educational Services Division. The eight-page publication lists new models of 16mm projectors, school sound systems and components, standard and stereo phonographs, radios, broadcast transmitters, test equipment, electron tubes, electron microscopes, language laboratory systems and a host of similar items indispensable in today's audio-visual school programs.

For a free copy of this catalog, circle number 883 on the Reader Service Card.

▼ **New construction technique.** A sound slide film in color, that describes Zonolite Co.'s new water-repellent masonry fill insulation and its use, is now available to architects, builders and school board members. The film includes application sequences, technical data on the material's insulation and water-shedding capabilities and ideas for architects and builders on new types of wall construction.

For a free showing of this film, circle number 838 on the Reader Service Card.

▼ **Handbook of closed-circuit TV.** A 12-page, illustrated handbook offering complete guidance on planning closed-circuit television programs is available from Giantview Television Network. Included in the handbook are a complete breakdown of closed-circuit costs—believed to be the first ever published—and a checklist of when and how to use closed-circuit for education or communication. The breakdown details all cost items in program origination, reception and line and loop charges. A description of a unique closed-circuit network concept is also included, along with illustrations of the latest models of theatre-type tele-

vision projection equipment for mass audience reception.

For a free copy of this handbook, circle number 832 on the Reader Service Card.

▼ **For effective window treatments.** Teachers of home economics will welcome a new training and reference book, "Drapery Hardware Selection Made Easy," offered by the Kirsch Co. It explains exactly which items of drapery hardware are needed for every type of window and window treatment and is written clearly and simply so that it can be used in the classroom for student instruction. Included are pages of basic window types, treatments suitable for each type and many illustrations of ideas for dressing windows.

For a free copy of this book, circle number 888 on the Reader Service Card.

▼ **Educational tool purchasing.** This factual, thought-provoking report on school purchasing procedures raises many pertinent questions that must be answered for the efficient purchasing of tools for education. Drawn from a panel discussion at last October's Association of School Business Officials meeting, the published report should be read with interest by every school purchasing official interested in doing a better job in his district.

For a free copy of this report, circle number 887 on the Reader Service Card.

▼ **Versatile steel scaffolds.** The numerous set-ups possible with multiple scaffold units to provide higher, wider or longer work platform areas, are illustrated in Baker Scaffolds' 16-page brochure, just released. Shown in detail are the exclusive features of the company's units. They assemble quickly and easily to form safe, rigid work platforms, adjustable in three-inch increments from 22 inches to five-

feet, eight-inches (plus caster heights). Platform heights can be changed by manually releasing a special spring-loaded catch which provides automatic locking and resists vibration and bumps.

For a free copy of this brochure, circle number 835 on the Reader Service Card.

▼ **Data processing card selector.** The Keysort Selector is described in a new style sheet just released by the Data Processing Division of Royal McBee Corp. The machine selects Keysort cards relating to any desired classifications without disturbing the filed order. Step-by-step operations are illustrated. One entire edge of a classification, or combination of them, may be sorted at each operation. Approximately 200 cards may be accommodated. The card platform is adjustable to eight positions, depending upon the size of the card being sorted and whether offset sorting or complete removal is being done.

For a free copy of this style sheet, circle number 833 on the Reader Service Card.

▼ **School lighting.** A four-page, two-color folder giving information about its line of school lighting fixtures, is available from Smithcraft Lighting. Included are detailed descriptions and illustrations of fixtures designed specifically to meet present-day high level school lighting standards at savings in cost, installation and maintenance. The folder is designed to be an immediate reference guide for architects, engineers and other school lighting specifiers.

For a free copy of this folder, circle number 834 on the Reader Service Card.

▼ **Elementary science apparatus.** A profusely illustrated, 32-page booklet containing hundreds of items recommended
continued on page 124



New Cork-Tex® bulletin board can take it!

You're looking at Cork-Tex®, the first bulletin board that combines the brilliant color possibilities of vinyl with the rapid healing properties of genuine cork. You choose the precise vinyl color and pattern that blends with your interior scheme.

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The Cork-Tex® secret: Special adhesive permanently bonds unadulterated cork sheet to handsome, longer-lasting vinyl cover.



Many colors in stock. Write us and we'll have the nearest distributor contact you. He'll show you color swatches and price lists.

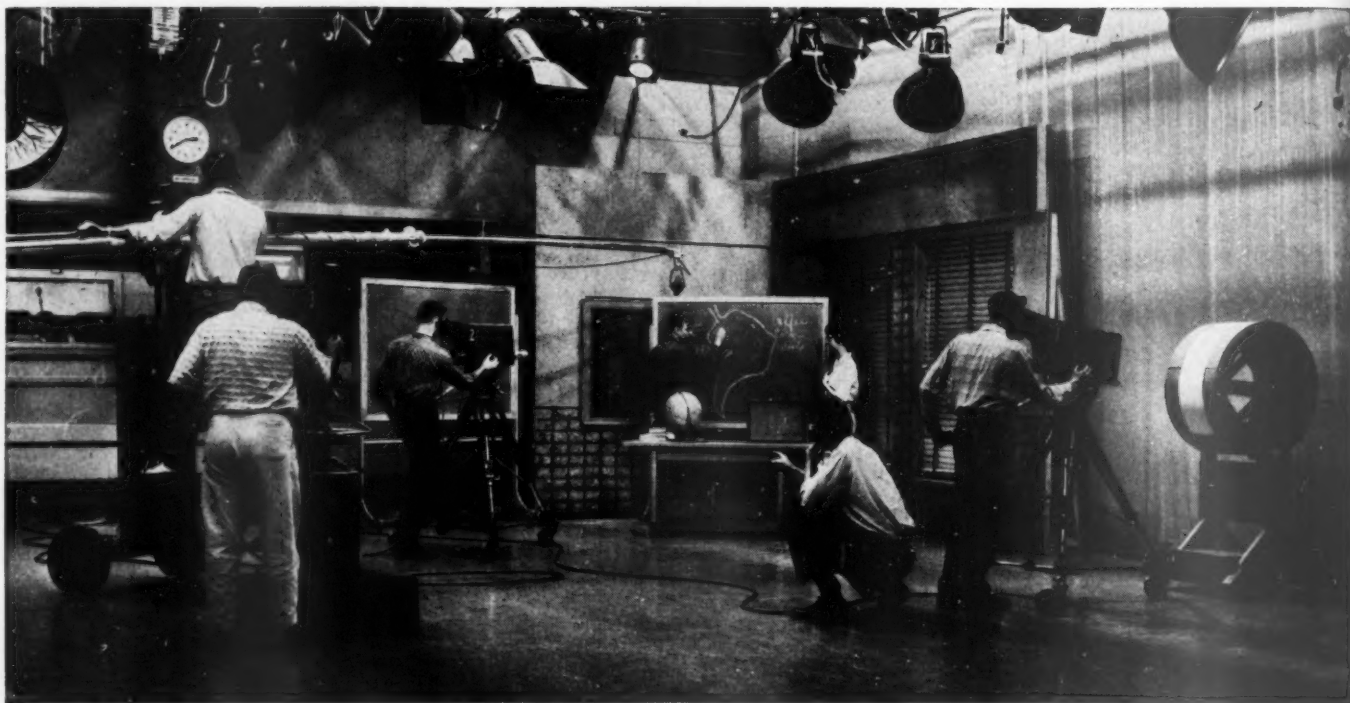
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Educational Television at Work



● San Diego State College, in booming Southern California, has nearly tripled in size since World War II with a present enrollment of 10,000 and 15,000 projected by 1965.

To meet this growth, and keep pace with the surrounding community, San Diego State has taken advantage of the latest, most modern educational techniques. In 1957, with the assistance of the Sarkes Tarzian ETV department, San Diego inaugurated one of the country's most comprehensive ETV facilities.

At San Diego, instructional television is used for two basic purposes: limited experimentation in the teaching of large classes, segmented into smaller groups located in several classrooms; and for special demonstration lectures, where television's unique features communicate details and processes lost by less progressive means. Although these productions are the responsibility of the faculty, they also serve as a training ground in production techniques for stu-

dents enrolled in the school's broadcasting curriculum.

Both large and small schools throughout the country are finding the answer to their ETV need with equipment from Sarkes Tarzian, Inc., a pioneer in the development and production of educational TV facilities. Tarzian systems are known for their simplicity of operation—with no sacrifice in quality of material, construction or performance—and low costs, both initial and operating.

A Tarzian closed circuit ETV system, with a minimum of basic equipment, is available for as little as \$8,000, with more elaborate systems running correspondingly higher. And, our ETV Department is at your service—at no extra cost—to assist in planning, designing and installing an ETV system to meet your requirements. . . . We invite your inquiries. No obligation; write or call: Educational TV Department, Broadcast Equipment Division, Sarkes Tarzian, Inc., Bloomington, Indiana.

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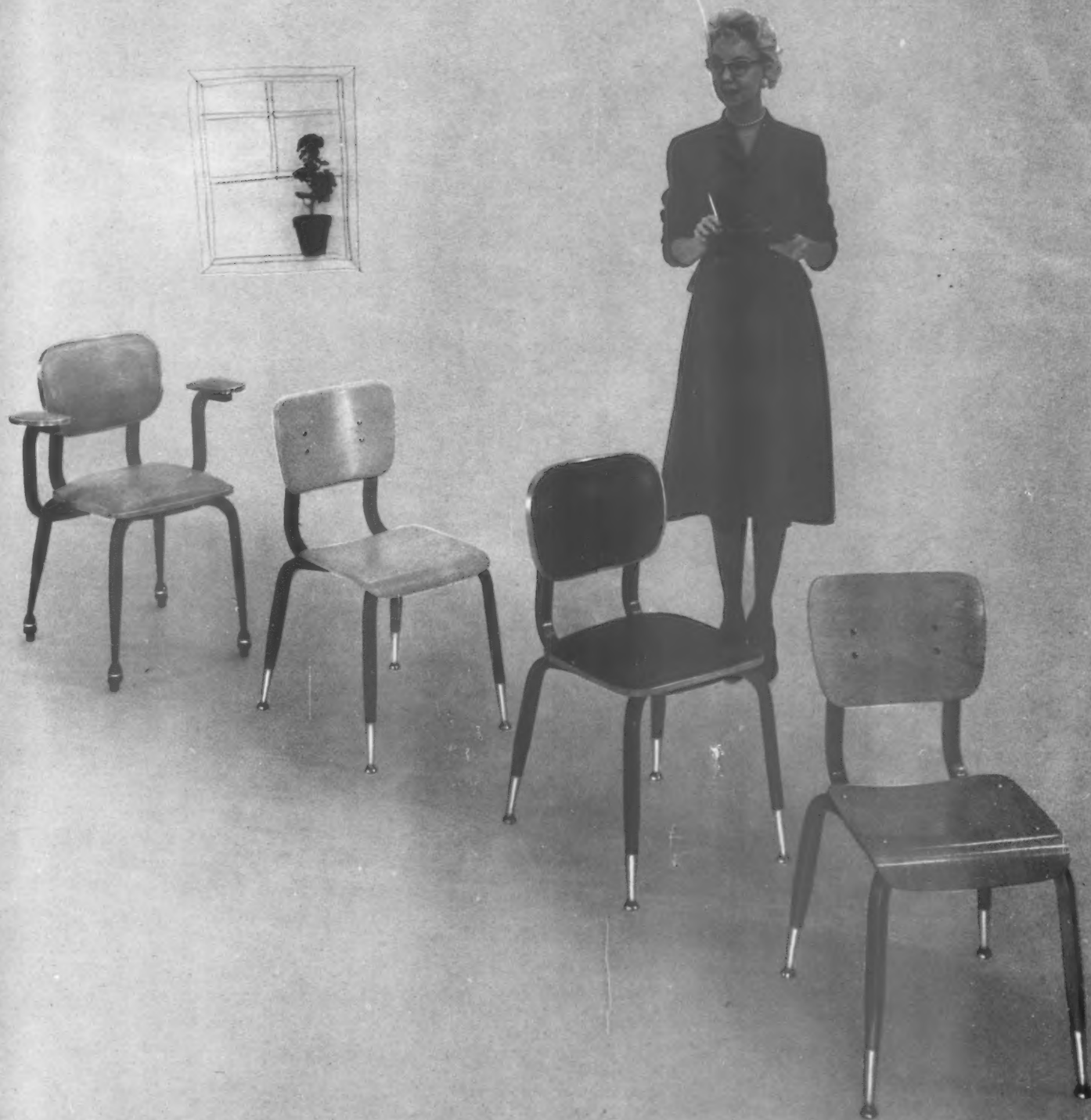
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illustrated front-to-back: *Series 900 Combo Chair and Desk; Series 600 Chair Desk; Series 700 Tablet Arm Chair; Series 700-P Pedestal Tablet Arm Chair.*

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American Desk...performance rated "scholarship"!



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illustrated front-to-back: *The Crusader Series 300 Chair Desk; Series 335-TA Tablet Arm Chair; Series 303 Tablet Arm Chair; Series 33 Crusader Chair.*

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THINGS YOUR PUBLIC OUGHT TO KNOW

Basic information that schoolmen can use as a part of a community education program

What teachers want

A revealing study by the NEA's Department of Classroom Teachers reflects a more insistent—and less plaintive—attitude about what constitutes good working conditions. Whether you agree with the findings or not, it would be well to consider them carefully.

■ ■ ■ For the first time in many decades, there's a seller's market in teachers. The many school officials who seem to resent the situation would be well advised to remember that "when butter is dear you pay more for butter." For the next few years, at least, we face a very real shortage. And only a fool would expect that the demands of teachers will not follow the law of the market. When teachers are needed, they will demand certain conditions of employment and they will get them.

What do teachers want? What do they expect in the way of conditions of work? Some answers are available in a new study just published by the influential Department of Classroom Teachers of the NEA.* Every hundredth member of the department was sent a questionnaire which invited him or her to register one of four levels of concern as to the need for a policy statement on various factors involved in "working conditions." In other words, an issue was stated and the teachers were asked to check one of these four judgments:

1. Extremely important issue.

2. Important issue for policy statement.

3. Desirable for policy statement (but not of prime importance).

4. Not desirable for policy statement.

Quality teaching

It's interesting and significant that all of the conditions of work *were considered only in terms of "quality teaching."* In effect, teachers did not speak as union members presenting ultimatums, but as professional people trying to measure what was required to do an optimum job.

How they voted

Although sub-standard salaries were deplored, *overwork* appears to be of equal—if not greater—concern to the 2,022 educators who were polled. Eighty-seven percent of the teachers urged that class size be given "crucial issue" or "important issue" treatment. Almost 70% of the elementary teachers voted for a maximum class size of 26 pupils to do a quality teaching job. At the secondary level, teachers voted in terms of total pupil load (the number of pupils enrolled in their classes). Here, over 80% stated that a maximum of 140 pupils was their

goal—and 50% said 100 pupils should be maximum!

In the same context, the report strikes at the dubious practice of calculating teacher-pupil ratio by including administrators, supervisors and coordinators as though they were part of the classroom teaching staff.

Unassigned time

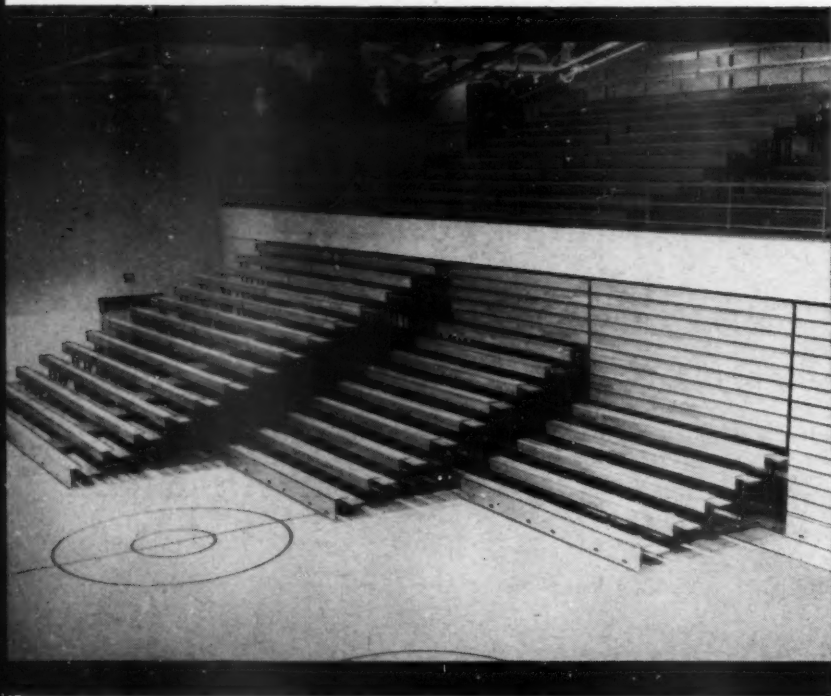
On the need for unassigned time during the school day, 40% of the teachers thought this to be "crucial" and 38% "important." This appears to be one of the principal areas of dissatisfaction. It should be recognized that in giving this issue precedence, the teachers are *not* asking for "free" time. Rather, they point out the need, in a modern curriculum, for lesson planning, grading and pupil counseling—time to be used electively on professional pursuits. Elementary teachers, especially, felt that some break in their total-time responsibility for pupils was imperative.

Extra duties

In contrast, surprisingly few teachers rated "assignment of out-of-class duties" as a crucial problem. Only 9% felt chores like study hall, or supervision of playgrounds, corridors and lunchrooms, should be

*The full report ("Conditions of work for quality teaching") from which the above data is drawn is available from the NEA, 1201 16th St. N.W., Washington, D.C. Price \$1.25.

get versatile gymnasium seating for your new or present school building



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TELESCOPING GYM SEATS

permit quick, easy set-up changes
for every gymnasium event

YOU CAN assure profitable *full-time use* of your school gymnasium—planned or existing—with this modern equipment, available in recessed, wall-attached, movable and reverse-fold types. Seating set-up changes are made quickly to fit every event. Any number of rows can be locked open (*see photo*). Safway telescoping gym seats give you these practical advantages:

SPECTATOR COMFORT—Good sight lines from every seat. Ample foot and knee room; comfortable inclined seats.

COMPLETE SAFETY—Full protection for spectators, gym users and maintenance personnel.

FLOOR PROTECTION—Non-marking wheels roll in separate tracks to prevent grooving.

EASY OPERATION—Straight-line tracking with extra-large wheels and nylon glides. Motorized operation available (not needed under 14 rows).

GOOD LOOKS—Seats nest back into a handsome vertical cabinet. Safway's rich, warm Golden Oak finish will be in harmony with any interior.

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(Circle number 753 for more information)

given top priority as a factor affecting quality teaching.

On the matter of a duty-free lunch period for themselves, however, teachers were noticeably less sanguine. As the report points out, "It may be thought that the mid-morning and mid-afternoon recesses for pupils offer the teacher a deserved break, but for most of the staff these periods offer only a brief change of duty since the students must be supervised for reasons of safety and liability. Moreover, prevailing educational policy regards the recess as a learning opportunity, not merely a recreation period." Thus, on the matter of duty-free lunch periods, teachers voted 29% for considering them "crucial" and 37% for "important." Its worth noting that "right-to-eat" laws now prevail in California, Illinois, Massachusetts and New Jersey.

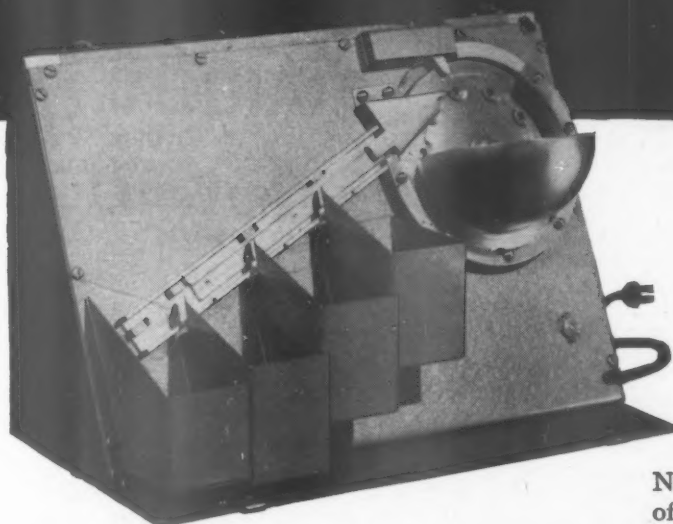
Importance of the administration

The role of the administrator, to the teacher, is an important "working condition." The report makes this observation in that regard: "If the administrative staff is required to consider itself as exclusively management and, therefore, separate from the instructional staff, then classroom teachers and others will find it awkward to communicate their views to the administrative staff and the reverse communications will fall all too often on deaf ears." Thus, while only 10% of the teachers labelled the role of the administrators as "crucial," an emphatic additional 43% considered it "important." There was a slightly greater concern, on this issue, among more experienced teachers and, as the number of teachers in the school increased, there was an increase in the proportion who marked the issue "important" or "critical."

The strong sense of "professionalism" felt by teachers is underlined by their reaction to the question in regard to participation in the school's educational policies. Here, 57% rated participation as crucial or important. To those who might tend to discount this factor, the report warns, "Teachers are not fooled into thinking they have participated in policy making when it is obvious that administrative decisions have already been reached on the problems." **End**

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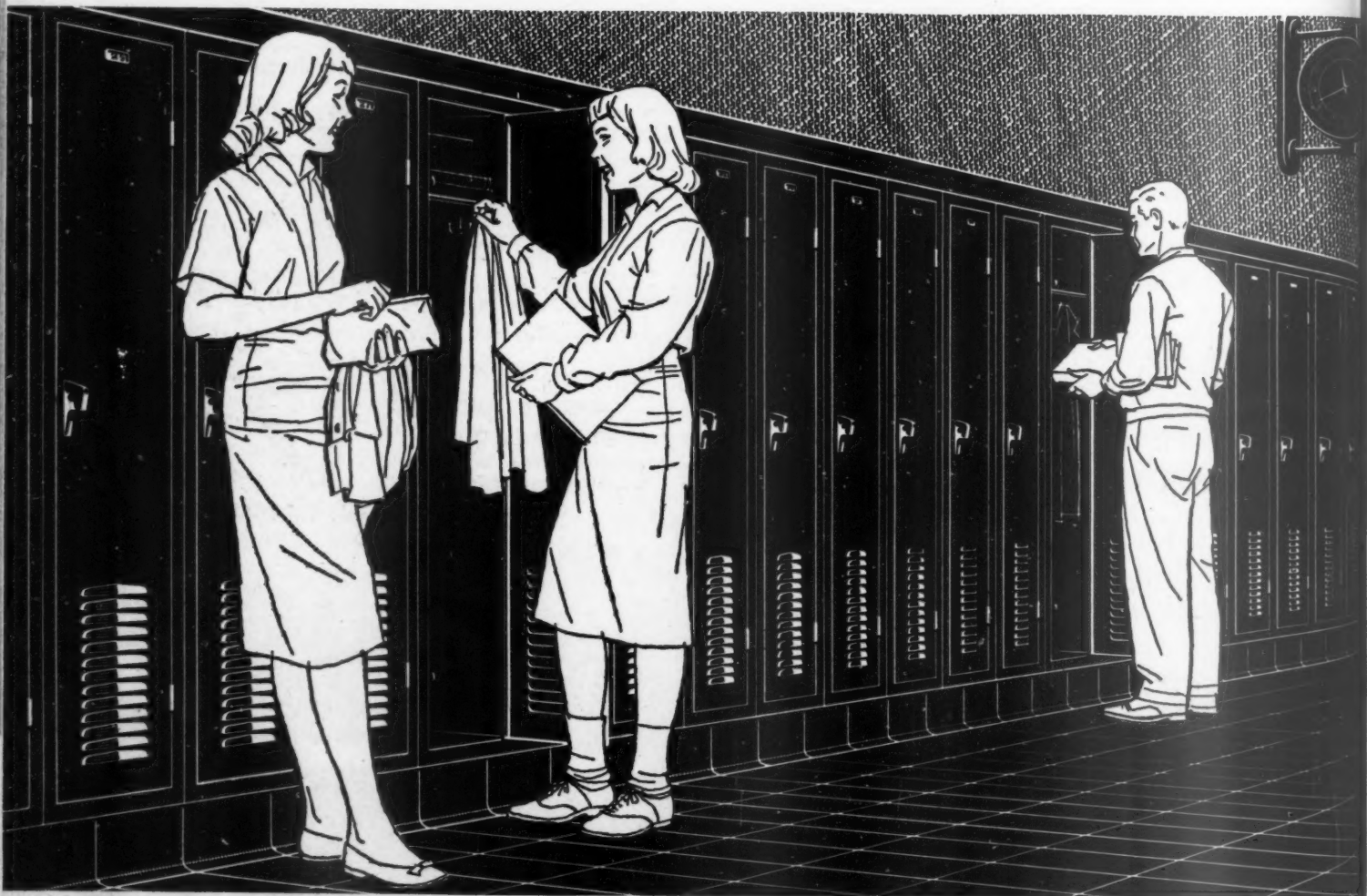
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NEWS OF THE SCHOOLS

A digest of current happenings in public education

A hole in the ground

The new campus of the Hopewell School in Zanesville, Ohio, has been called just a "hole in the ground," by some people, but that hole, it seems, contains oil.

When a pool of oil was found on the school grounds a while ago, three holes were drilled. One ceased production some time ago and the second was dry. A third hole has now been capped.

The drilling brought the school district a total of some \$3,000, which was used to buy enough land to expand the campus from 12 to 52 acres.

The voters said no, so athletics must go

When voters in Strongsville, Ohio, trooped to the polls for the second time in five weeks recently to vote on a five-mill levy for the schools, they had ringing in their ears the warning of Superintendent Louis A. Lenkaitis that if they again voted *no*, there would have to be a drastic cut in school services.

Apparently most of the voters thought this was the usual idle threat. They defeated the levy and sat back to see what would happen. Now they know.

Faced by the necessity of cutting school costs \$110,000 the school board ordered all interscholastic athletics ended as of the first week in January. No school building may be used after 5 p.m. or on weekends, for any purpose. Boy and Girl Scouts, PTA's, clubs, etc., will have to find new meeting places.

The adult recreation program, Saturday music lessons, transportation for kindergarten students, and the opening of a new elementary school are among the other activities ruled out by the board.

Now the voters of Strongsville must wait until next May to decide if they want to change their minds. There is good reason to think they will. For one thing, a survey, made after the school board announced its cuts, showed that nobody was willing to admit that he

had voted against the levy. And then, the school board hit them where it really hurt. As one citizen put it: "I don't think anybody thought they would really cut out sports!"

There's a tavern in the town, supported by the school board

If you think you've got a tough problem to explain to voters in your district, consider the plight of Galena Park, Tex., school authorities. They just learned that they have been paying the light and insurance bills for a beer hall.

It seems that during the '40's, the school board constructed a two-room schoolhouse on the outskirts of town on land donated by the owner of a brick and tile company. Population shifts caused the school to be closed down but the board agreed to keep up

minimum insurance and electricity payments on the building because a church group was using it as a meeting hall.

The church group apparently abandoned the building several years ago, but regular light and insurance bills kept coming in and the school board continued to pay them.

Then, recently, the bill, which had been 75¢ each month, jumped up to \$13. A little startled, Business Manager Harold DeMent went to investigate. He found the "school" door locked. Peering inside, he noticed a juke box and refrigeration equipment of the kind usually used by bars.

DeMent called the man who had originally donated the property and learned, sure enough, that the building was now being used as a beer hall. It seems that the original agreement called for the land to revert back to the company when the school board was finished using it. Since the building, erected by the schools, belonged

Too good to miss . . .

Kept hopping . . . Henry C. Battles, city clerk in Rutland, Vt., is really being kept hopping by the schools. Battles, who is purchasing agent for the city, was asked to obtain a dozen bullfrogs for use in junior high school science classes. "They ask me to buy bullfrogs, so I get them bullfrogs," Battles lamented. "But when I went to school, I had to provide *my own* bullfrogs."

Kept busy Three students in Maryland's Prince Georges County are being kept busy this spring, by court order. The three admitted puncturing the tires of a school bus by putting nails under them. Judge R. Lee Van Horn sentenced the three to spend one Saturday each month until June, cleaning a school bus apiece.

Kept off . . . Pity poor David Mayhew, a high school senior in Windsor, Vt. David, who is 17, grew a moustache three years ago. Nobody seemed to mind it then, but recently David was suspended from school by Principal Ronald Torrey, when he refused to shave off the moustache. The school board supported Principal Torrey's clean-shaven edict and David had to give up his three-year-old pride and joy. David attributed the sudden attention to his moustache to a recent rash of beatnik beards and sideburns sported by other students at the school.

Kept out . . . Concerned over the lack of rapport between the taxpayers and educators in Vermont, the state education board met with Governor Robert Stafford to discuss "a proposal for putting the state board more closely in touch with opinion around the state." In a first move in that direction, the meeting was closed to the press and the public. No sense in complicating the meeting by hearing public opinion.

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2. If you already own a Super Model BP-2 or RS-1, as many do, simply buy the low priced Squee-Zee 30 attachment.

Either way you really get two units for the price of one—a Super cleaner and a big volume wet pick-up machine.



Super Squee-Zee 30 consists of a 30" neoprene rubber blade mounted in a metal frame, a suction chamber, 1½" hose, an adjustable handle and two metal plates by which the Squee-Zee 30 is attached to the transport handle of the cleaner.

The wide, capacious suction chamber avoids the small orifice bottle-neck and gives faster, drier pick-up—takes up water as fast as the operator can walk.

The adjustable handle permits easy use by any operator tall or short. The rear mounting avoids wheel marks and permits the operator to use the pressure necessary for low places in the floor. The unit can be attached and detached without tools—hands only—in minutes. Write for catalog and data, or ask your local Super distributor.

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to the land, the owner had simply leased it to a proper tenant. The matter of who was paying the light and insurance bills was never raised.

The Galena Park board, apprised of its stake in the state's liquor business, immediately disassociated, voting unanimously that it didn't own the land, the building or the light bill.

And thus, alas, ended the town's unique distinction of being the only school board in the nation that was operating a genuine, dyed-in-the-wool, educational emporium, better known as a beer hall.

Curriculum changes due in Pennsylvania schools

The first curriculum changes of major proportions in 30 years will be introduced in Pennsylvania's junior high schools next September. The seventh, eighth and ninth grades are included.

Major changes indicated by Charles H. Boehm, state superintendent of public instruction, include drastic cuts in the so-called minor subjects, including art, music, shop and practical arts. Emphasis will be placed on academic courses including foreign languages. Health education will be taught as a part of existing science classes.

At the present time junior high school students take four major courses—including mathematics, English, science and social studies—and an art course, a music course and two days of practical arts, each year.

Boehm termed the minor subjects a "fragmentation which has not served in the best interests of the students." He indicated his belief that talented students would be able to complete the requirements of the new curriculum in two years, leaving an extra year for more intensive study.

Tapes exchanged by schools to improve language courses

Three New York State high schools are participating in an exchange of tape-recorded foreign language conversations in an effort to improve their course offerings.

The program, inaugurated last spring by schools in Centereach, a New York City suburb, and two towns near Buffalo—Lackawanna and North Tonawanda—has resulted in improved pronunciation of Spanish and French at the schools, along with increased interest in the courses.

The program was started by Centereach's audio-visual director, Ber-

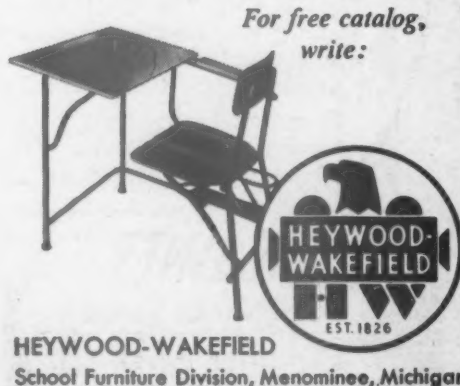
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nard Hanley. Students at Centereach recorded, in French, a tape telling about themselves, their school and their area. This tape was sent out to the two other schools. Students there replied with taped statements of their own.

In agreeing to participate in the exchange program, Lackawanna High School Teacher Mrs. John Gormley wrote Hanley: "Thank you for suggesting this. It is making the students watch their pronunciation . . . try to improve their speech, and at the same time their interest is increased."

Centereach hopes to expand its

program almost immediately, so that tapes can be sent to schools around the nation and, possibly, overseas, too.

After-hours religious training out of schools

The New Jersey State Department of Education has ruled that public school buildings may not be used for religious instruction, even after school hours.

In a report to the East Paterson,

N. J., school board, the state body said it based its opinion on court decisions holding it illegal to use schools for religious training. The local board had been planning to lease the high school after hours.

The dispute arose when several board members raised the constitutional question of religious use of the school buildings. Many local clergymen agreed that the schools should not be used, pointing out that the churches had adequate facilities of their own.

Proponents of using the schools for religious training stated that having the sessions as soon as school was dismissed would encourage youngsters to attend.



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New bus mirrors protect school children

New safety mirrors that enable school bus drivers to see within inches in front of their buses have been installed on all school buses in Rocky Ford, Colo.

Small children, disregarding safety precautions, frequently dash in front of the bus as they are leaving the vehicle. A fatal accident occurred in May, 1958, when a small girl ran across the road as she left the bus.

The new mirrors are installed on the right side of the vehicle so as to enable the driver to see objects in front of the bus a foot above the ground and within inches of the hood.

With the new equipment, developed about a year ago, the driver can determine quickly whether any child is near the bus before he continues on his route.

Civic-drive printing curbed in schools

Duplicating machines in the New Canaan, Conn., schools were withdrawn from civic battles by a ruling of the school board. Henceforth they may be used only to turn out material dealing with "legitimate educational matters."

The question of use of the school equipment became a major issue in a battle over the location of a railroad station in the town. A group of parents in one school used a duplicating machine to print handbills opposing the proposed location on the basis of danger to children in a nearby school. The proposal was defeated.

It has been customary in New Canaan for the schools to duplicate and

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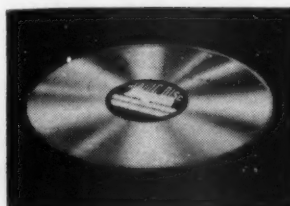
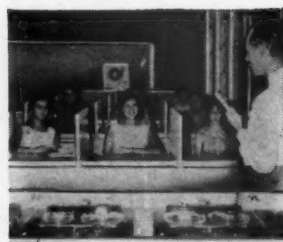
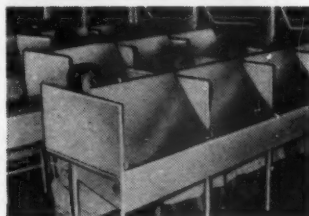
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distribute material for Parent-Teacher and other groups, in behalf of school bond votes and similar matters.

In the future school duplicating machines will be used for outside groups only with the specific approval of either the school principals or of the superintendent.

Attending PTA dinners ruled in line of duty by court

Attending PTA dinners falls within the line of duty of educators, according to the New Jersey State Supreme Court.

The Court upheld a lower court decision awarding compensation to a school superintendent who suffered a heart attack while speaking before one of his local PTA's.

The court let stand an award of \$5,782 to Superintendent Warren J. McClain of Woodbury, N. J. The challenge to the original decision was based on the presumption that the dinner was a "social" evening.

Student funds must be spent, attorney general rules

Montana Attorney General Forrest H. Anderson has declared it improper for a school board to accumulate an investment fund from extra-curricular activity fees paid by students.

The ruling came as a result of a protest lodged against one board that had accumulated more than \$7,500 in this manner. "Funds accumulated by assessment of fees from students are school funds and are impressed with a trust," Anderson ruled.

"Such a fund should be used for the specific purpose for which the fee was paid. Building up a fund for investment is not [such] a purpose."

The attorney general acknowledged, however, that a class or group of students may accumulate a fund to be spent for a particular purpose in a later year.

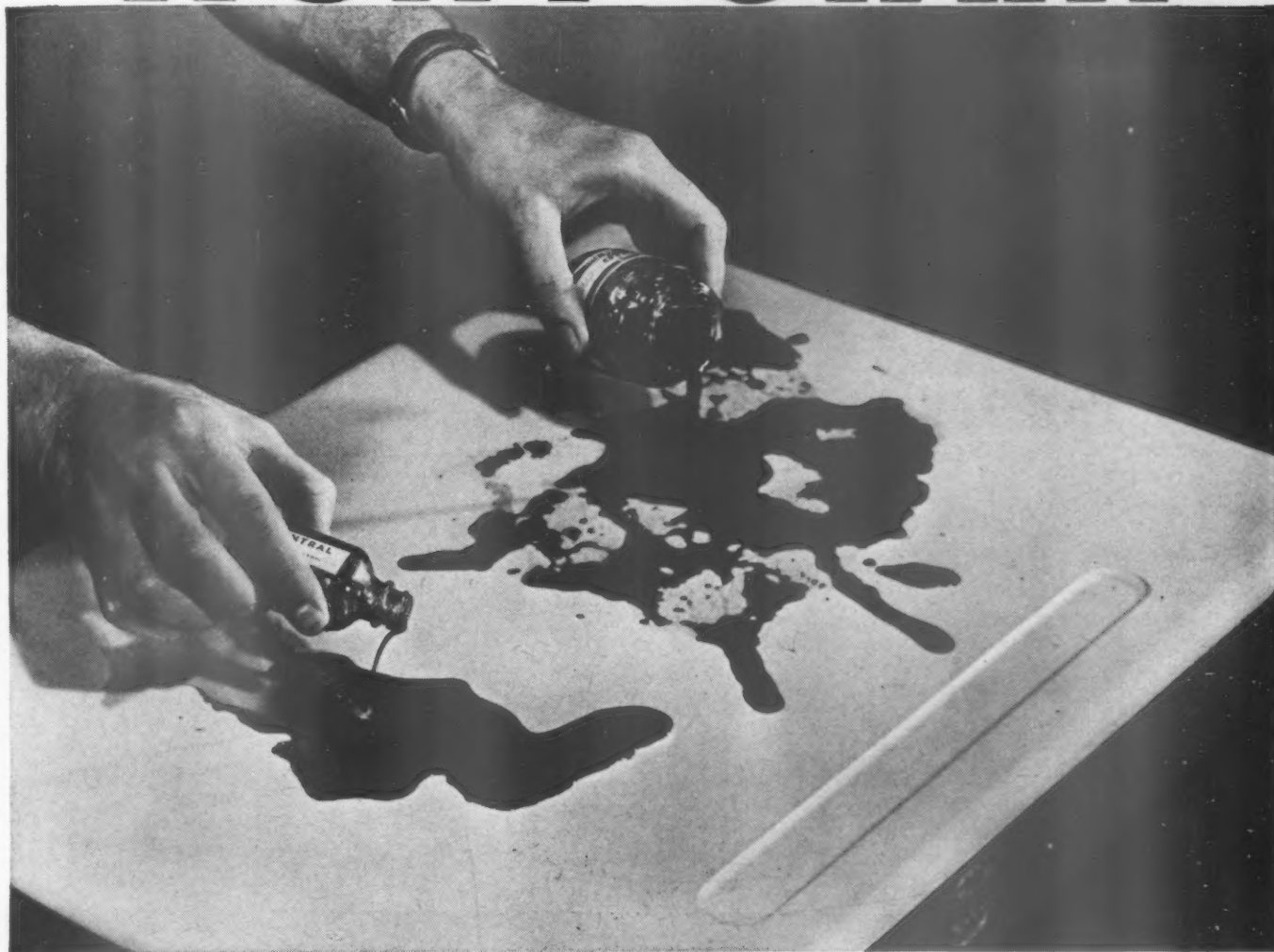
Utah governor ties school support to cost of living

Governor George D. Clyde of Utah has suggested that the Federal Cost of Living Index be tied to state support to local school programs in much the same way that some industries have tied it to salaries.

The governor stated that Utah's

continued on page 44

WON'T STAIN

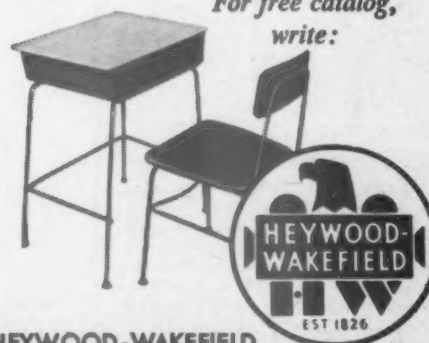


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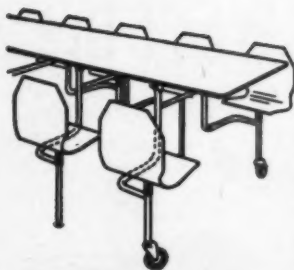


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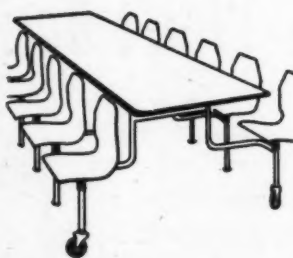
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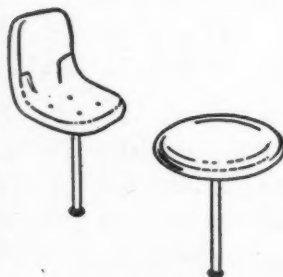
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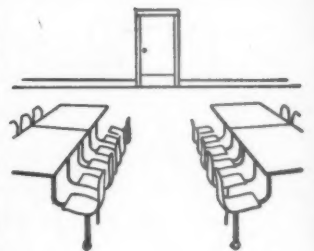
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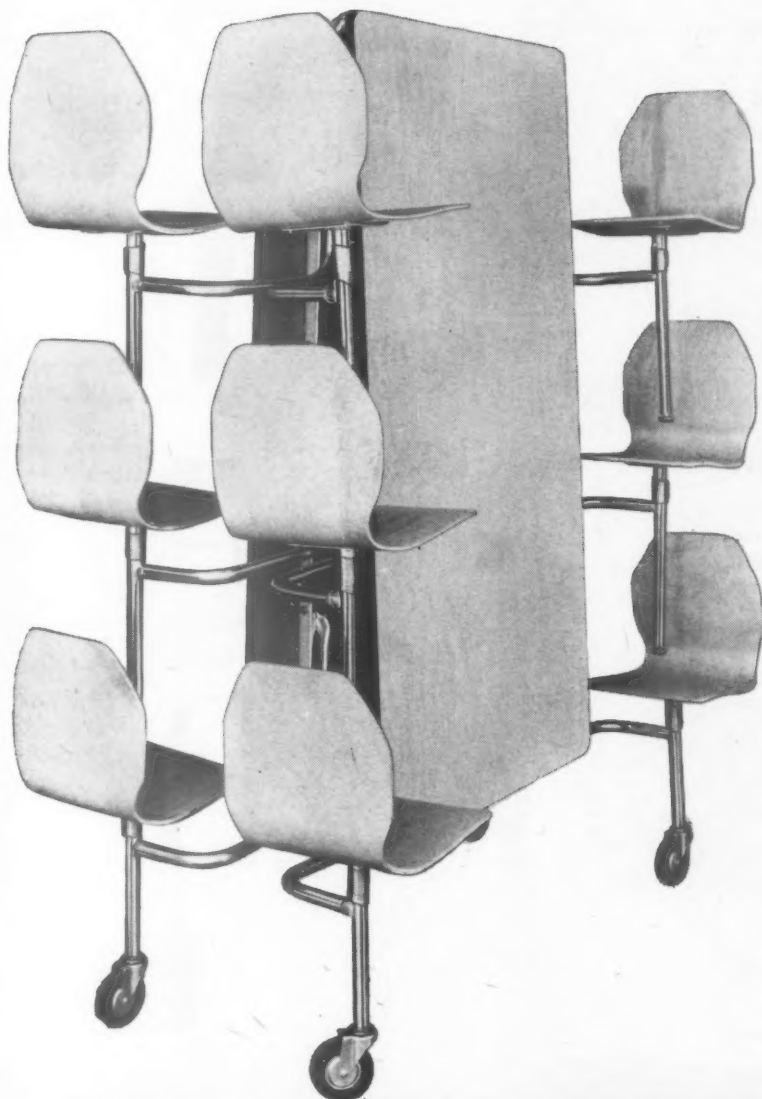


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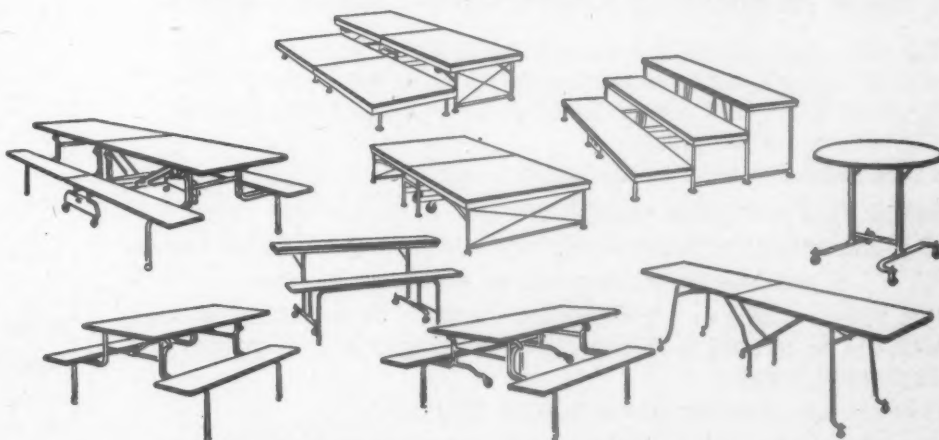
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present school aid formula was adequate to handle growth in district size because it is influenced by the number of students served. By adding the additional factor of inflation, he suggested, the formula could become a permanent one that would eliminate annual debates and pressures over school finance.

Under the governor's plan, when the cost of living went up, state aid would go up, too. When living costs dropped, state aid to schools would presumably drop at the same time.

"Increases in teacher salary above

those provided by the cost-of-living factor, would be entirely related to merit and would not be automatic as under the present policy," Governor Clyde explained.

New report cards put students on level

A new report card developed in Niagara Falls, N. Y., is classifying every student by achievement levels in each individual subject. Teacher rec-

ommendations and tests will be used to determine levels. Designations such as honors group, above average group, average, etc., will be used.

A student will receive a grade *within his group*, so that a given student may receive an 80 in the honors group in English and be doing better work in that subject than in mathematics, where he is getting an 85 in an average group.

Final course grades will be based on tests given at the end of 20, 30 and 40 weeks and a final examination. Tests given after 10 weeks of school are being disregarded as insignificant.

The card will also have an area for recommendations to parents on ways in which their children can be helped. Junior High School Principal Peter R. Gugino chairman of the parent-teacher committee that devised the new card, called it "a measuring device to send a message home."

High school failures spur Texas students

A rash of failing grades in San Antonio, Tex., high schools, has brought students and parents up short. Almost 37% of the 11,631 students in 13 public and private schools received at least one failing grade. In one school—Brackenridge High School—54.8% of the students failed at least one subject.

The failing grades were registered at the end of the first marking period. Teachers and school principals said they welcomed the publicity caused by the failures because, they hoped, it would spur students to work harder during the rest of the year.

Football season, television and ownership of cars were given a principal share of the blame for the high number of failures. The principal of the Brackenridge school calculated that the combination of after-school jobs, Thursday night football games, and "just not applying themselves," were the major causes.

Students asked about the situation were much more realistic and to-the-point: "We're just not studying hard enough," was the general explanation.

New board sweeps clean, shakes up district

The latest educational eruption in the Pennsylvania coal mine area comes from Redstone Township, where an election caused the former minority
continued on page 49



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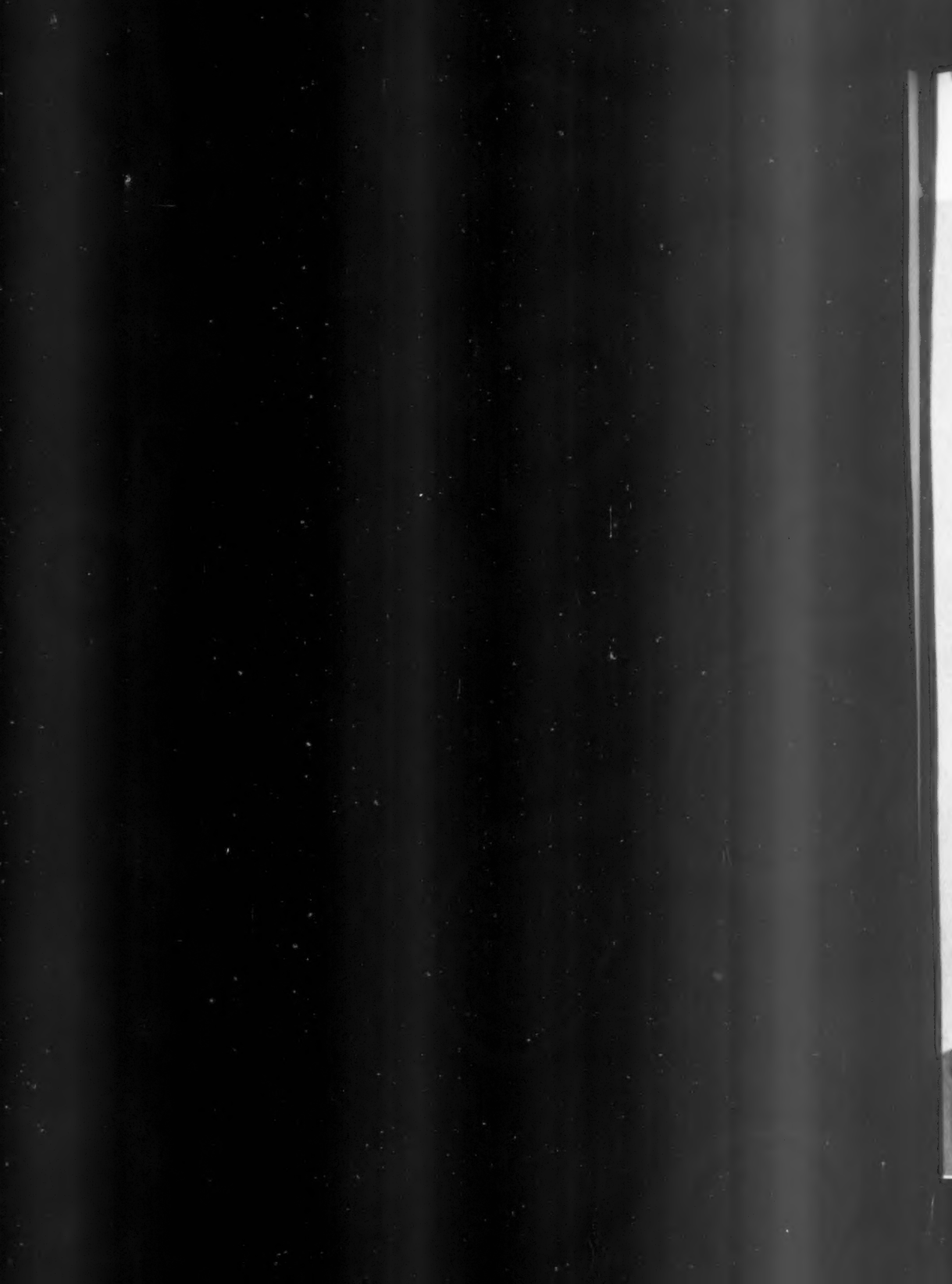


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Would you cheat a child?...



Many children are paying a shocking price for our complacency. Why?

THE FIGURES clearly indicate that in all too many instances we are not practicing what we know in equipping our schools. As a result, America is failing in its obligations to great numbers of school children. We're cheating them during the most formative years of their lives.

Records show that far too many of our children are leaving the elementary grades with observable, preventable physical defects. These defects carry on through the upper grades and often through life . . . some with devastating results.

Superintendents and other school planners are not to blame. For the matter is often taken right out of their experienced hands in the hysteria that accompanies a crisis in education like the one that exists today — the most serious in our history.

What are the factors that contribute to the causes of these defects? Why is the rate of preventable defects higher in the elementary grades? Why should you, as an educator or a business executive in a school sys-

tem, be concerned? What can we do to prevent these defects? Why aren't more parents alarmed?

Is it because education is everybody's business? Yes. But also because too many people refuse to take a realistic look at the facts. And when they do someone heedlessly says, "I didn't have this or that when I went to school and I did all right," or "Let's cut out the frills in education."

You have seen this happen in your own community all too often. It is a form of false austerity, without regard to reason or consequences.

Let's put the spotlight on the subject. Simply stated, the classroom factors that are the biggest culprits are: improper seating, improper lighting, improper placement of working materials, in the order named.

Improper seating and improper lighting are inexcusable, for both good seating and good lighting are readily available. Improper placement of working materials is largely the result of improper seating.

Just consider for the moment the

furniture you personally use in your office or that which is prevalent today among business people. Then compare it with some of the furniture in our schools.

Posture is important. Sight conservation is important. Scientific research has been profitably applied to these problems. Yet, the figures clearly indicate that we are not taking the scientific advances into consideration, in all too many instances, when we purchase school equipment.

If your chair swivels to give easy access and egress, if it's formed to fit your back . . . shouldn't a child be given these advantages, too? The best of today's school furniture incorporates these features.

Furniture hewed out of solid wood and bolted to the floor may have been good enough in the good old days. It was quiet, because it stayed put. But modern methods of teaching and learning require furniture that can be moved. Shall we sentence a child to sit for 15,000 hours* in a kitchen-type chair that he must scrape to turn, push back to get up — when modern research makes it possible to minimize noise in movable school furniture? Of course not!

How about the angle of a child's desk-top? Dials on telephones are scientifically placed at just the right angle for you to dial easily. Drawing boards in our design studios and in industry are easily adjustable to just the right slant for more efficient, effective work. Instruments in our modern planes are positioned to make reading easy. But millions of school

children are denied the benefit of desk tops that can be adjusted to different slopes for reading, writing, or drawing. Why?

America is educating her children for tomorrow's challenges . . . not yesterday's. Our children are growing taller; let's give them school furniture that can be raised and lowered to meet individual needs. Let's give them a place to sit down and learn to the best of their abilities. Just as we provide those in industry with tools that bring out their best.

A seat back of molded plastic that fits a child's body, flexes when he moves, reduces restless wiggling, distraction from studies and disturbances that upset him and the rest of the class is *not a frill*. A desk top that slopes to help him see better, work better is *not a frill*. The child denied such advantages as these pays compensation with his body, his eyes, his mind. The toll, of course, is highest in the formative elementary years.

Why aren't more parents alarmed? Many aren't aware of the shocking truth; others are just complacent. But the vast majority put their trust in school officials, and rightly so, to see that the proper school equipment is purchased.

Moral: School furniture is the most important single item you purchase affecting the physical and intellectual development of children. When the time comes to buy it, don't think of what you had, or of your investment in furniture as such . . . think of America's investment in its children.

*Time spent seated by average student, kindergarten through college.

TEACHER'S PRIDE? or TEACHER'S PROBLEM?



Study-Centers give students a lift for life.



Eliminate posture problems of old-fashioned furniture.

Physical and intellectual development of students starts with classroom furniture. Good furniture means a good start! Poor furniture = problems! It's that simple.

The American Seating Study-Center—which has been acclaimed by school authorities, teachers, and parents alike for promoting good posture—costs less than a penny a week more than ordinary school furniture.

Insist on it for your school. Send for our free "Facts" booklet.



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faction to become the majority. In one fell swoop, the new board:

- Demoted an assistant supervising principal to a safety education teacher.
- Removed the athletic director from his job and assigned him to teaching history.

- Eliminated the job of junior high school principal, assigning the incumbent to a teaching position.

- Fired the truant officer and ruled that the supervising principal must take on the job as one of his activities. The supervising principal was also assigned to supervise bus schedules and must report to the high school principal every day.

- Removed the teacher who was acting as faculty manager of athletics and gave the job to the high school principal.

- Changed the combination on the school's safe and gave it solely to a school board clerk.

The new board said all the actions were taken in the interests of "economy." The former administration had reduced the school debt from \$300,000 to about \$24,000 in a four-year period.

In making known its decisions, the board voted to send letters to the affected teachers and administrators offering a public hearing. We await the outcome, eagerly.

Foot loose

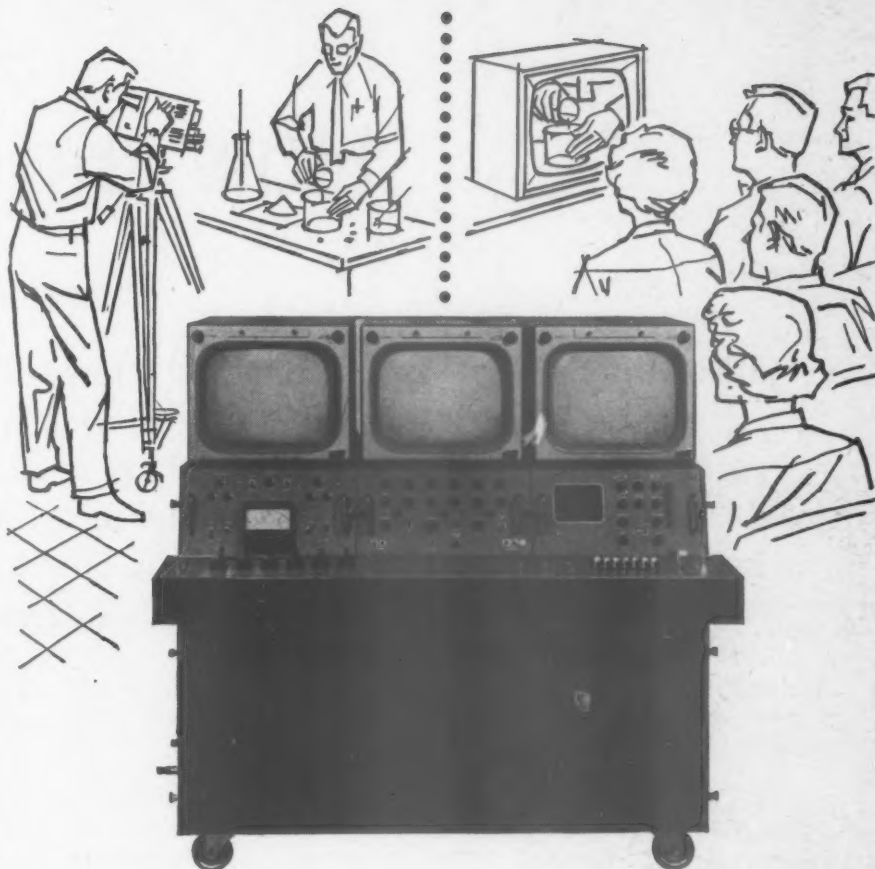
They may be taking the foot out of football, but it seems to be having a revival in the schools. Witness the following:

In Richland, Wash., the PTA sponsored a free foot clinic. The mothers examined 620 feet on 310 children, looking for health problems.

In Innsbruck, Austria, the feet are used to get to school. While parents in this country worry about rocky paths over open lots, the Austrian students are being taught about avalanches, so they can skip over them on their way to school this winter and spring.

And back in this country, Teacher Rudy Ramos, of Van Nuys, Calif., was dismissed from his job when he planted his foot firmly on the posterior of a 15-year-old student.

Ramos was also accused in court of "assault with a deadly weapon," but Judge Francis A. Cochran dismissed the charge, saying: "This type of punishment, if properly applied in our schools, might solve some of our juvenile delinquency problems."



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equipped with electronic viewfinder, hood, four-lens turret and tripod. It gives excellent picture quality, even of microscopic materials. Attractive console contains video monitors, camera controls, sync generator power supply and wave form monitor. Modular construction of console makes it easy to maintain and operate . . .

accommodates optional equipment as needed . . . will broadcast on micro-wave for intra-school networks. For complete details about the Dage ETS-1 write for our free catalog, or request consultation with a Dage representative.



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How the Ford Fund

Blessed by many—and damned by a few—the Ford Foundation's Fund for the Advancement of Education must be reckoned with as one of the most potent forces shaping educational policy in America today. Here, in a tape-recorded interview, the Fund's secretary tells what it's trying to do, how it judges applications for money, and what it demands in return.

■ ■ ■ When the Ford Foundation began to plow millions into our educational wastelands a few years ago, it was greeted with universal praise. Today, a substantial section of the educational community takes a less-than-enthusiastic view of its work.

How can you make enemies by giving away money? It's easy, when you establish firm policies as to what kind of projects you will support with grants. It's even easier when you are willing—through obstinacy or courage—to run head-on into powerful groups that are hostile to theories you are backing.

Educational television is a good case in point. The Ford Foundation, and the Fund for the Advancement of Education (its main educational arm), have poured millions of dollars into projects designed to encourage the use of television as a teaching tool. Professional teaching organizations have taken violent exception to what they believe is over-emphasis of an instrument they classify only as an interesting adjunct to classroom instruction.

Television isn't the only sore-spot. Many competent educators feel that the Fund's criteria for making grants are too restrictive, that its officials back only those ideas which interest them personally. Others challenge the right of a few individuals to dole out tax-free "public money." Still others mumble vaguely that "It's easier to get a million dollars than a thousand."

The Fund has its supporters, too. To them, it is just what its name implies—a fund for the advancement of education. They see it as one of the very few public or private forces willing to invest "risk capital" in pioneering projects. They point to the debilitating de-

lay that confronts almost every new idea in education before it gains acceptance. (Columbia University researchers, for example, report that "after an invention which is destined to spread throughout the schools appears, 15 years typically elapse before it is found in 3% of the school systems.") Specific proof is not hard to find. New and extremely successful methods for teaching foreign languages were developed by the Army in World War II. Today, 15 years later, it is doubtful whether even 3% of the schools are using these proven techniques.

It is not surprising that the Fund's most active proponents are the impatient people who, galled by delay and lack of money, see its millions of dollars as education's best hope for speedier progress.

The Fund speaks for itself

Because of the many myths and misapprehensions that have grown up around the name "Ford Foundation," SCHOOL MANAGEMENT editors recently interviewed Philip H. Coombs, secretary of the Fund for the Advancement of Education. Among the questions asked in the following article are:

- What kind of work are you interested in financing?
- How does a school district go about requesting a grant?
- What strings are attached?
- Is it true that the Fund is basically interested only in grants of \$100,000 and more?

The answers to these and other vital questions about the Fund and its activities are found in the following tape-recorded interview.

makes a grant

Q Mr. Coombs, what does the Fund for the Advancement of Education see as its primary objective? What is its main target?

COOMBS: We have felt from the outset that one of the greatest needs of American education was for what has been called "risk capital." That is, funds, often modest funds, to try out a new idea. We have felt all along that educational advancement requires not only larger expenditures, but a change in the way of doing business. In this sense, we are in the business of change. We are giving encouragement and support to people in education, at all levels, who have promising ideas that might make education better.

Q. Let's assume that the superintendent of a school system applies for a grant. He says, "I've got an idea. I need money to pursue it." How can he tell whether his idea would be acceptable to the Fund? What criteria would you give him?

COOMBS: The first test of an idea is whether it might result in giving American education a new approach to some familiar major problem. Is it a fresh approach to a central problem? Next, we'd ask whether its demonstration, in a particular school system, might provide guidance to others. So, the first question your superintendent should ask himself is whether his idea is on the frontier of education, and would make a difference if it proved successful.

We cannot possibly undertake to provide continuing support for something which has already proved to be a good thing or for minor refinements, no matter how desirable.

Q. How can a man tell if his idea meets these criteria?

COOMBS: There are several questions he might ask himself. First:

What is the Ford Foundation?

The Ford Foundation, established in 1936, is a private non-profit corporation. Until 1950, it operated almost wholly in Michigan. The Foundation has given more than \$1 billion to some 6,000 organizations, with more than 90% of that total granted in the last nine years.

Although the Foundation usually works through existing organizations, it has set up and funded 11 new independent groups to carry out specific tasks. Four are of particular interest to schoolmen.

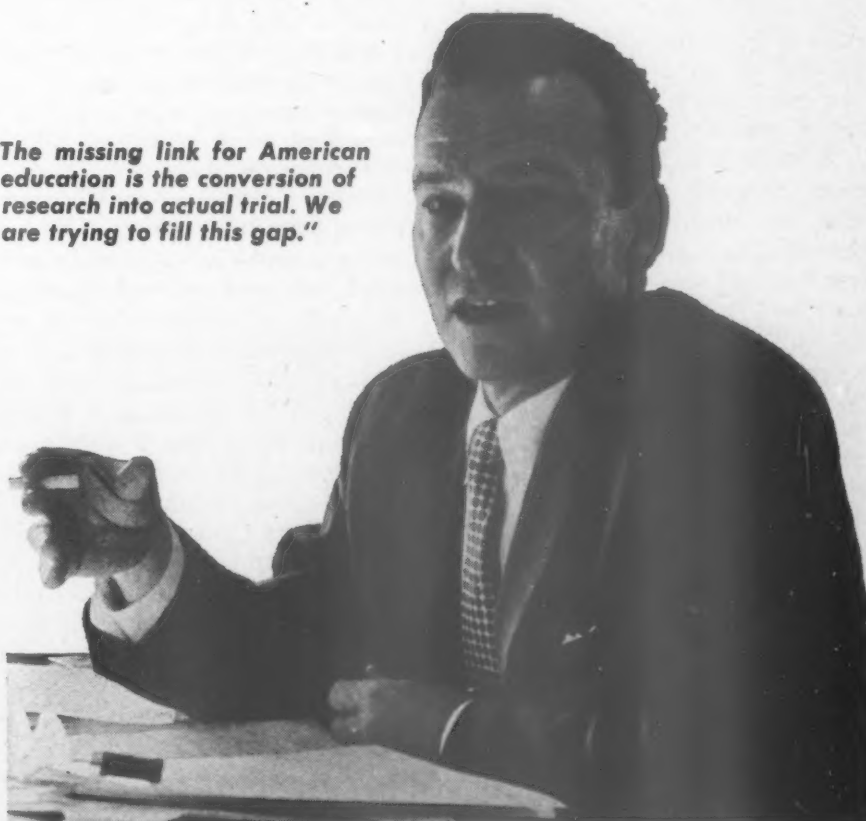
The Fund for Adult Education, White Plains, N. Y., was established in 1951 to support the development, testing and introduction of programs of adult education, especially in colleges and universities.

The Educational Facilities Laboratories, 477 Madison Ave, New York City, was established in 1958 to sponsor and promote research and experimentation aimed at the more efficient construction and use of school and college plants and equipment.

The National Merit Scholarship Corporation, Evanston, Ill., was established in 1955 to conduct an annual nationwide competition among high school juniors and seniors and award four-year college scholarships.

The Fund for the Advancement of Education, 477 Madison Ave., New York City, was established in 1951 to support studies and experiments to improve school and college education. Better use of teacher skills, of modern means of communication and modern administrative practices and improvement of curriculum have been its major concern.

"The missing link for American education is the conversion of research into actual trial. We are trying to fill this gap."





WHO ARE THE EVALUATORS?

When an idea or request for a grant is sent to the Fund for the Advancement of Education, it is evaluated by that organization's staff members. The question has been raised: "Who are these people who can sit in judgment on our ideas and decide whether or not to hand out money?" Mr. Coombs' answer to that query, follows:

"Our staff—and it is a very much smaller staff than is popularly assumed—is made up of generalists, rather than specialists. We don't, for example, have a person who is an expert in fifth grade arithmetic teaching and we don't want one. We don't even think of ourselves as pigeon-holed between elementary, secondary or graduate education."

"We think one of the problems of American education is that it has become too subdivided and too separated from itself. We have people, for example, who have had experience in college administra-

Do I have an idea? Have I thought it through so that I am clear as to what the idea is? Second: What problem am I trying to get at with this action I am proposing? We want someone to have thought through what the problem is and his particular proposed approach to getting at that problem. And, as I said before, we want to be sure it is a basic one.

The third question ought to be this: Is this problem unique to *our* community, or is it shared by many *other* communities? We are interested in the second kind of problem, because we are a national foundation concerned with American education generally.

A fourth question is: Am I simply trying to apply, in my community, what has already been established elsewhere as a good thing to do or is this a fresh approach to the problem? We think that every school system ought to be on the lookout for really good ideas that have been demonstrated by others. But they should do this at their own expense, as part of the normal procedure of improving their schools. We are interested in the creative approach that needs testing for the benefit of *all* schools.

Q. Do you evaluate the source of an idea, as well as the idea itself?

COOMBS: That's the fifth question, and this is a rather subtle, but terribly important, one in determining the success of any endeavor: Are the conditions in my school system,

and in my community, reasonably favorable to trying out this approach? Is the "climate" right? This means, certainly, that you have to have leaders in the school who believe that the idea is worth trying and are willing to give it leadership. The board has to be favorable. Enough teachers must be. And the community has to be favorable to the idea of trying a new approach.

Q. Let's forget the local school district for a moment, and consider another kind of applicant. Suppose a college professor, or a man working on his doctorate, wants to conduct a survey on a subject that is important to all educators. Education will profit. He proposes to go to 100 school districts around the country to study this problem. This is a research problem—a research project. It may very well end up only as an article, or a dissertation. Is this at all attractive to the Fund?

COOMBS: This probably would not be attractive. Not because it isn't important to do, but the missing link for American education is the *conversion of such research into actual trial*. We are trying, as best we can, to fill this gap between research and what, in industry, you would call the pilot plant operation. That is, we're trying it out in practice to see if it really works.

Q. Aren't you drawing a very fine line?

COOMBS: Let me give you an actual example that will illustrate the con-

trast between these two ways of approaching a problem. Take the problem of rural schools. We all know that they have a very special set of problems. If a university came to us and said, "We would like to establish an Institute of Rural Education to probe into the problems of rural schools and do general studies of the problems," we would be inclined to turn it down. It might be a good thing to do—I'm not denying that—but this is not our dish. If, on the other hand, someone representing a group of rural schools in Colorado came to us and said, "We run some rural schools. We are unhappy with our situation. We have some ideas about how to improve them and would like to try them," then we would be very much interested. In fact, we made a grant in Colorado to do just this with over 20 rural schools. We made a similar grant in New York State.

In short, we are not interested merely in having problems studied, as important as this is; we would like to support *actions* that hold promise of helping to solve the problem. And we assume that school people who are energetically attacking an important problem, are also analyzing and studying that problem in the process.

Q. Are there any other criteria you apply, any other questions an applicant should ask himself?

COOMBS: I would say there is one other. That is: Am I prepared, right

tion. Most of us on the staff have done some teaching, either in schools or at the college level. Our subjects ranged from psychology to economics to literature, but we don't collect people on a subject-matter basis.

"We try to get people who have broad experience, analytical ability and objectivity—people who don't bring a narrow, doctrinaire position to the job. I am convinced that one of the main reasons I was hired in the first place was because I had not grown up in the educational profession. I had taught, but it was economics.

"I don't mean to imply that we don't have any judgments or convictions about education. We do. But we find them constantly growing with new insights. We get these largely outside of our office. We get refreshed and educated by traveling around and talking to people and looking at situations. Fortunately, most of our contacts are with people who have ideas, who are steamed up and are doing something about them. They are the ones who educate us and shape our thinking on education."

from the outset, to follow my own project as critically and objectively as I can, to evaluate how it works, and to share my results freely with other school systems?

Q. Suppose a man comes to you with a good idea, but you look at his district—the environment from which he has come—and you know it will never work there. What do you do then?

COOMBS: Well, we can't make ourselves political or sociological experts on every community. If this idea has been put forth with the support of the school board—and we always want to make sure that the school board knows what is going on and approves of it—this is pretty good evidence that the community is not split wide open. So we are normally quite willing to go ahead and assume that the environment is fairly good if the school board itself endorses its proposal.

Q. A district comes to you with a good idea and you have decided to provide funds. Do you ever say, "It would be a wise thing to get another district doing the same thing at the same time," and then go out and seek a district to run a parallel experiment of the same type?

COOMBS: We do like to have more than one school system attacking the problem along somewhat similar lines, but we certainly wouldn't insist that they be identical. In fact, it is a good idea to attack a problem

in a variety of ways, so that you don't get a particular party-line way of doing it. We don't seek school districts to try out a particular idea—we do seek school districts that have ideas, and if some of their ideas are directed at the kind of problems that we are concerned with, then we encourage them to shape them up.

Q Let's say a district has an idea and wants to apply for a grant. How should it go about contacting the Fund? Do you have an application form that a superintendent can use for this purpose?

"We do like to have more than one school system attacking a problem, but not necessarily in the same way."



COOMBS: We don't have any application forms. We are very informal. I would say that a school district that feels it might want to turn to us for support ought first to write us a letter. It doesn't have to be a fancy letter—it can be an initial contact. We can usually tell them, right off, whether this is the kind of thing that we might be interested in or not. If we are interested, then we can arrange for them to give us more information, or we can have one of our staff people visit them, or they can visit us.

Q. What are some of the specific areas that you are interested in?

COOMBS: There are three general problem areas that interest us. The first has to do with personnel of the schools—their recruitment, utilization, working conditions, opportunities for growth and advancement. This has been our most important area of concentration. A second category is program, because it is the combination of personnel and program that really constitutes the essence of the educational process. Here we are especially interested in problems of curriculum. We are more concerned with the total curriculum than any one subject, but we would define curriculum broadly enough to include all of the exposure to learning that a student has. For example, we are concerned about the "lockstep" in education because it holds some back and pushes others too fast. Likewise, we are interested in such things as independent study, tape teaching, televised instruction—as means of improving the quality



"There are no strings attached to a grant except the tacit one that you do what you say you are going to do."

and depth of learning. The third category is somewhat harder to define. It is the relationship of the educational system to society. Here, for example, you get into problems such as the economics of education. How do you finance education? Society has to do that. We are concerned with equality-of-opportunity in education. This is a broad social matter, involving such problems as segregation, economic barriers to higher education, and so on.

Q. Let's say that a district has an idea within these areas. You mentioned sending an informal letter. Does it matter who sends this letter? Must it come from the superintendent?

COOMBS: No, it doesn't have to. However, since we obviously don't know all the school systems in the country, we take much more seri-

ously a letter which comes from a person who is in a position of some authority. Teachers are free to write to us; we know they are a major source of good ideas and we welcome their letters. But one always wonders, when the teacher feels that he has to send a proposal directly, what is wrong with his own school system that he cannot communicate this to his superintendent.

Q. What happens when a superintendent or a board writes a letter? Who gets it when his letter reaches here?

COOMBS: The letter goes to an appropriate staff person in the Fund. The first determination he makes is whether this idea fits at all within our general program lines. If it doesn't, we try to tell the person frankly and immediately that we are sorry, that this is not something we

can consider. Though we have no sharp organizational lines within our own group, frequently one of us will be more equipped than another to work with a particular proposal. The proposal might be addressed to me and I might send it over to one of my colleagues whom I think knows more about this kind of thing than I do. Then my colleague will look it over. If it has earmarks of promise, he will write back and perhaps ask for additional information.

Q. How soon might he write back?

COOMBS: Usually the letters will get acknowledged right away, but they don't necessarily get handled that quickly. It may be because we are all off traveling. We try to spend a good deal of time in the field. Or it may be that we want to check into this idea, to find out more about what is going on in the area. Ultimately, of course, when a proposal is fully developed, it goes to our board of directors for approval or disapproval.

Q It has been said that if a school district were to write to you and say it wanted \$100,000 to do something, it would get much better and more favorable consideration than a district that asked for only \$1,000 or \$1,500.

COOMBS: That is certainly one of the myths that is abroad. Let me say this as a general statement: We are

continued on page 110

CAN A FUND-BACKED PROJECT FAIL?

One myth about the Ford Fund is that it will not allow a project it backs to fail. Mr. Coombs replies:

"I think the real test of the success of an idea is whether, some years later, other school systems, without support from outside, undertake to do something similar themselves. This is the acid test.

"Take the Bay City, Mich., teacher aide project. The central idea was very simple. People with special skill should be enabled to concentrate on their use and leave other duties to people who are not so skilled. It's a simple division of labor.

"Was the Bay City experiment a failure? Certainly

not. The fact is that all around the United States today, there are school systems which—having looked at Bay City and a similar experiment in Fairfield, Conn.—are, without our knowledge or support, going ahead and incorporating somewhat similar approaches in their own systems.

"Now this, it seems to me, is the final test of whether the idea was any good. As to the question of whether the Fund ever expects to fail—of course we do. I would say that if we picked only projects which were so safe they were guaranteed to succeed, we wouldn't be doing our job."

If
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SUMMER
SESSION

Here's a "fishing pond" of ideas based upon the successful experience of Clayton, Mo., with a program to challenge teachers—and students—in all St. Louis area high schools, to stretch intellectually.

■ ■ ■ If you have been weighing the idea of a summer school for your district, consider the advantages that can result:

Your students benefit: All of them—slow, average and superior—gain from the program, depending upon the groups to which you gear it.

Your teachers benefit: The opportunity to observe and participate in summer school classes provides inexperienced teachers with a valuable orientation period before the start of regular sessions in September. Summer teaching offers experienced teachers a means of working at their chosen profession on a 12-month-year basis.

Your curriculum benefits: The summer session serves as an experimental laboratory in which a variety of teaching methods and course materials can be tried and tested.

Your recruitment program benefits: Teacher trainees and graduate students in education may be attracted to your school system after observing classes in operation during the summer.

Add to these advantages one non-measurable side effect—the fact that school plants and facilities which generally lay idle during July and August can be employed to good purpose—and the reason for

the current nation-wide interest in summer programs for schools snaps into focus.

How Clayton did it

Most of these factors were involved in the decision to establish a 1959 summer program in metropolitan St. Louis, Mo., though stimulation of superior students was the basic idea behind the project.

Sparked by the enthusiasm and drive of Superintendent Francis V. Lloyd, Jr., of Clayton Mo., the Mark Twain Summer Institute grew out of the cooperative efforts of its board of directors of prominent educators and lay people and other

Large group instruction



At one of the summer session's weekly assemblies, students were addressed by Thomas S. Hall, Dean, College of Liberal Arts, Washington University.

Small group instruction



Mrs. Rosalia Rosenbaum (left), instructor of Russian, listens critically with the students to playbacks of their voices made on a tape recorder.

Student discussion



Members of the English literature class separate into informal groups to exchange criticism and make suggestions about each other's essays.

educators and interested citizens in the metropolitan St. Louis region. Sponsored by the Clayton Board of Education, in cooperation with the Graduate Institute of Education of Washington University, its purposes were outlined in the proposal submitted to The Danforth Foundation, which agreed to finance the project for a three-year period:

- To offer academically able students courses which cannot be scheduled in their own schools and which will enable them to gain advanced standing at the secondary and college level.

- To provide student teachers an opportunity to work with master teachers in the development of methods designed to challenge superior students.

- To permit master teachers to associate with each other in a common venture so that their combined abilities, enthusiasms and experience may develop new approaches in education.

- To develop a pilot program that other areas can follow.

At the heart of MTSI—which ran from June 15 to July 24—was the desire to challenge the intellectually gifted. The courses offered were designed to supplement, not duplicate, courses of study available in other schools in the area. Certain other ground rules were established before work on the program was actively begun. Among them:

1. The courses offered would not be for credit.
2. The tuition fee would be \$40 for one course (this has been raised to \$50 for the 1960 summer session).
3. Scholarship aid would be made available for those in need of it.
4. A corps of master teachers would be engaged for the program.
5. MTSI would have equipment beyond the reach of local schools.
6. The classrooms used would be air conditioned. (Most of the people involved in MTSI felt that this was a critically important factor in the program's success.)

How students were recruited

Once the basic framework of the summer program was established, student recruitment was actively be-

All photos courtesy the St. Louis Post-Dispatch

gun. Since the success or failure of the project depended directly upon how well schoolmen in the area were acquainted with it, an intensive public relations campaign was mounted first. (See MTISI's action blueprint in column three.)

Letters of explanation and information sheets went out in early November, 1958, to all local superintendents, high school principals, junior high principals, guidance and curriculum directors, college offices and other interested persons and organizations. About 1,700 catalogs and application blanks and 4,000 information fliers were distributed by the first week of December. In addition, publicity for the project was sought through newspapers, magazines, radio broadcasts and television.

Four points about the MTISI program were repeatedly emphasized in press releases, talks before interested groups and all public announcements:

1. It was open to students from all schools—public, private and parochial.

2. The applicant's race, religion and place of residence in the greater St. Louis area had no bearing on student selection.

3. Scholarship aid was readily available.

4. A student body that represented a true cross section of America's democratic society was sought for the project.

How students were selected

By the January 15, 1959, deadline, 502 applications had been received from students interested in attending the summer program. Since MTISI was designed for approximately 200, a screening process was established for the selection of students. Preference was given to those who would be entering the 11th and 12th grades in September, 1959. (See chart, page 117, for grade levels of students enrolled.) Final selection was based upon high school academic records, the personal recommendations of principals, teachers and counselors and the results of a screening examination held in February.

The median IQ of the 477 stu-

dents (from 82 different high schools) who took the screening test was 128.6. The median IQ for the 234 students (from 63 different high schools) finally enrolled in MTISI was 136.8.

Staff recruitment and selection

Assembling a staff of master teachers for MTISI proved to be no problem. Local school administrators recommended their most exceptional teachers on request. These recommendations, together with applications from interested teachers and a limited number of other outstanding teachers sought directly for the MTISI staff, brought the list of prospective-staff members to 60 by mid-December, 1958. Paradoxically, at that time the total number of student applications received numbered only 15.

Final selection of teachers was based upon academic qualifications—with specific attention given to academic grades and hours devoted to the subject matter to be taught, success in previous teaching experience, professional recognition in chosen field, recommendation of present superiors and the subjective opinion of the MTISI director based upon a personal visit to the classroom and a personal interview.

A teacher assignment committee examined the credentials and recommendations of all prospective staff members, selecting those to be interviewed further and those to be observed in action in the classroom.

Six intern teachers—some with previous teaching experience—were appointed to assist master teachers in English, biology, mathematics and social science classes. These were chosen from those enrolled in graduate courses of education at Washington University.

Curriculum

The courses finally offered during last year's summer session included English composition and literature (designed to better prepare students for the examination given by the Advanced Placement Program of the College Entrance Examination Board), Russian, Ger-

text continues on page 117

Blueprint for action

By keeping to a tightly scheduled program, St. Louis schoolmen were able to get MTISI off and running with relatively few unforeseen complications. Here is a condensed version of their timetable.

BEFORE OCTOBER 31

Initial curriculum planning completed by committee working with local educators.

Course descriptions prepared for catalog.

MTISI information flier due at printer.

BEFORE NOVEMBER 10

Letters and fliers mailed to superintendents, principals and PTA presidents in area.

NOVEMBER 11

Copy for catalog due at printer.

BEFORE NOVEMBER 30

Fliers sent to various education associations.

BEFORE DECEMBER 1

Catalogs and application forms mailed to area superintendents, principals and guidance counselors.

DECEMBER 8

MTISI board meeting.

BEFORE JANUARY 1

Preliminary contact with potential staff.

JANUARY 15

Final date for return of student applications.

Final date for return of teacher applications.

Tuition aid forms mailed to student applicants as requested.

FEBRUARY 1

Final date for return of principals' recommendations.

FEBRUARY 7, 12, 14

Screening test for applicants at Clayton H.S.

MARCH 15

Notification of status mailed to applicants accepted, accepted as alternate or rejected.

APRIL 1

Announcement of tuition aid grants. Final arrangements with staff.

JUNE 13

Final staff meeting.

JUNE 15

Opening day of MTISI program.

JULY 24

Final day of program.

How to handle truants

In Salinas, Calif., a student who fails to attend school regularly and punctually is guilty of misconduct—and misconduct can mean suspension or expulsion. Here's how the district carries out its stern attendance procedures.

■ ■ ■ A year ago, the Salinas, Calif., Union High School District adopted a student behavior policy that attracted nation-wide attention (see "How to put teeth in a discipline policy," *SM*, Apr., '59). Its principal feature was the statement that it is the *duty* of a pupil to be diligent in study.

Failure of a student to pursue his studies diligently was called misconduct. A student found guilty of misconduct was subject to disciplinary measures that included expulsion from school. (Eleven students, among a total of 4,500, were actually expelled in 1958-59.) After a full year of experience with this policy, it is apparent that it works—and works well.

One way to judge a student's diligence in study is to determine whether or not he is regular and punctual in attendance. It was for this reason that the Salinas school board recently expanded its student behavior policy—at the recommendation of Superintendent Donald P. Shock, who originated it—to include the handling of attendance

and particularly, truancy. The superintendent enlisted the cooperation and advice of his staff, the Monterey County Counsel's Office and other county law enforcement agencies—the district attorney's office, the probation office and juvenile court—in developing the new procedures.

Need for attendance procedures

Salinas school officials, concerned over the number of absences which appeared to be unnecessary, asked the district's attendance and welfare officer to begin a thorough investigation. He found that all too often there was no valid reason for a student's not being in school. In addition, he discovered that some parents—in the most flagrant cases—were prone to write absence excuses when requested to do so by their children. Such grounds as "headache," "not feeling well," or even "I don't want to go to school today; I have a test and I haven't studied," were frequently encountered. Since this last was never given to the school as the reason for absence, parents



Parents' Copy of Student Attendance Procedures

The Board of Trustees of the Salinas Union High School District adopted a *Student Behavior Policy* in August, a year ago. This policy listed as one of the duties of pupils that of being "diligent in study." One of the ways of judging diligence in study is the regular and punctual attendance by the pupils.

The Board of Trustees, in cooperation with the Probation Officer, District Attorney and in conjunction with its previously adopted Student Behavior Policy, sets forth the policy and procedure to be followed in attendance matters. This is an expansion of its previous student behavior policy.

Policy Statement

1. Pupils shall be regular and punctual in attendance. The failure of a pupil to be regular and punctual, unless excused, shall constitute misconduct.
2. The parent, guardian, or other person having control or charge of any child residing in the Salinas Union High School District, between the ages of 8 and 16 years, and not otherwise exempted, shall send the child to the public full time day school for which the public schools of the Salinas Union High School District are in session.
3. The school district shall take such action as may be available to it to enforce the parental duty to compel the child's attendance in school; however, in the event that it is demonstrated that parental control is nonexistent or ineffective, the school district shall refer the case to the properly constituted authorities to place the child under supervision and control.
4. Truancy.
 - a. Any child who is absent from school without a valid excuse for more than 3 days or tardy for more than 3 days shall be reported as a truant. These need not be consecutive.
 - b. Any child who has once been reported as a truant and is again absent from school without a valid excuse one or more days, or tardy one or more days shall be reported, as a truant.
 - c. Any child who has been reported truant three times shall be deemed to be an habitual truant.
 - d. Once a child is declared to be an habitual truant if in succeeding year he is again reported as a truant on one or more days, he shall be deemed to be an habitual truant for such succeeding year.
5. The State school law, Section 12101, fixes the responsibility of parents regarding school attendance as follows: "Each parent, guardian, or other person having control or charge of any minor between the ages of eight and sixteen years who removes the minor from any city, city and county, or school district before the completion of the current school term, shall enroll the minor in a public full-time day school of the city, city and county, or school district to which the minor is moved."
- State school law, Section 12454, prescribes the penalty imposed on parent or guardian for failing to comply with the school attendance laws as follows: "Any parent, guardian, or other person having control or charge of any child who fails to comply with the provisions of this chapter, unless excused or exempted therefrom, is guilty of a misdemeanor, and is liable, for the first offense to a fine of not more than ten dollars (\$10), or to imprisonment for not more than five days. For each subsequent offense he is

liable to a fine of not less than ten dollars (\$10), or more than fifty dollars (\$50), or to imprisonment for not less than five days, nor more than 25 days, or to both such fine and imprisonment."

6. The following law enforcement agencies will assist the schools:

- a. The District Attorney.
- b. The Probation Officer.
- c. The Juvenile Court.

7. The following procedure will be followed in truancy cases:

a. The 1st Truancy:

- 1) Pupil conference with Principal, Vice Principal or Dean.
- 2) Report on truancy conference placed in pupil's file.
- 3) Telephone notification to parent by Dean or Vice Principal.
- 4) Memo of phone conversation filed in pupil's folder.
- 5) Letter to parent by Dean or Vice Principal stating parent's duties about attendance.
- 6) District Supervisor contacts parents and reports results to school.
- 7) Pupil-Counselor conference if necessary.
- 8) Nurse-Counselor conference if necessary.
- 9) Nurse visits home if health problem prevails.

b. The 2nd Truancy:

- 1) Letter stating second truancy sent to parents requesting parental conference.
- 2) Copy of second truancy letter to parent placed in pupil's folder.
- 3) Parental conference held including parent, pupil, Vice Principal and/or Dean, District Supervisor.
- 4) Record of second conference action placed in student's folder.

c. The 3rd Truancy:

- 1) Notification sent to supervisor of third truancy.
- 2) Case history of truant forwarded to supervisor.
- 3) Supervisor requests conference with probation officer.
- 4) Case history sent to Probation Office.
- 5) District Attorney issues citation against parents.
- 6) Probation Officer reports disposition of case to supervisor.

d. The 4th Truancy:

- 1) Supervisor consults with Probation Officer as to further legal proceedings to be taken.
- 2) Petition to the Probation Dept. drawn by District Attorney.
- 3) Petition presented by Probation Dept. to Juvenile Court.

e. Further Truancy:

All further truancies referred by letter to Probation Dept. who will take such action as necessary.

This information is given to you so that you and your parents are aware of your obligations and duties as imposed by law in connection with attendance in the public schools. The schools have the duty imposed on them by law of enforcing attendance. Please take this home and discuss it with your parents so there is complete understanding all around.

And, one final remark. Every American has a duty to his country. This duty varies with age and other things. Right now your primary duty to your country is to prepare yourself for citizenship by attending school. You are a student and a student is "one who studies".



"Attendance is a measure of diligence"

Shortly after the schools opened, a digest of the attendance procedures was read to the students and each was given a copy to take home (*see box, page 59*). The complete procedure was posted in each classroom in the district and announcements about the new program were carried in newspapers and on radio and TV. In this way, school officials were assured that all students and their parents would be fully informed about the program.

How it works

The intent of the new attendance policy is to concentrate effort on the *first truancy* in the belief that this will forestall subsequent ones.

A truant is defined as any child absent or late for more than three days without a valid excuse (these need not be consecutive). A number of corrective measures are taken with the first reported truancy:

- The principal, vice-principal or dean confers with the student and enters the report of truancy and the results of the conference in the student's file.
- The counselor and the school nurse confer to determine whether or not a health problem exists. If it does, the nurse informs the parents.
- The child's parents or guardians are notified of the steps taken and a letter outlining their duty regarding attendance, and the penalty for non-compliance, is forwarded to them. A copy of it is filed.
- The district's supervisor of attendance and welfare contacts the parents to determine the reasons for truancy, the parents' attitude and other pertinent information and reports his findings to the school.

Following a second truancy, a conference is held with the child, the parents, the vice-principal or dean, the attendance officer and any other school officials the principal deems necessary. The same ground is covered once again and an attempt is made to plot a future course of action with the parents.

In the event of a third truancy, the county probation officer is contacted by the attendance supervisor and advised about the case of the truant. The probation officer calls the pupil and parents in to the dis-

trict attorney's office (in effect, an informal citation). The evidence is examined for parental delinquency and the parents are reminded, once again, of their responsibility and liabilities under the law. The probation officer then reports back to the attendance supervisor and advises whether the truant should be re-entered in school or referred to the district attorney's office.

If, despite these corrective steps, a child is reported truant for a fourth time, the attendance supervisor and probation officer consult about further legal proceedings to be taken. The probation officer may recommend family counseling if he thinks it will produce regular school attendance. Or he can request that a petition be filed for a juvenile court hearing, leaving it to the court to decide on disciplinary action.

All other truancy during the school year is referred to the probation office for action. With the backing of the juvenile court, the probation officer then enforces the regular school attendance of the truant. Court-approved action which can be taken ranges from reprimand to commitment to a 24-hour facility combining school and treatment. (Most of these correctional schools are operated by the California Youth Authority. Habitual truants can be taken from their homes and sentenced by the court to months or years in such institutions.)

The Salinas school board is convinced that these sterner measures were necessary to support its earlier behavior policy. It took this second step in as many years, to impress on both students and parents their duties regarding behavior and school attendance.

In the boards' view, the public school student has responsibilities to society. His primary duty while in school is to prepare himself for citizenship—by attending school regularly, applying himself diligently and conducting himself properly. Parents are obliged, morally and legally, to send their children to school. And the Salinas schools are living up to their end of the bargain—by seeing to it that every school-age child is given every opportunity to become a worthwhile, productive citizen. **End**

were often placed in the uncomfortable position of making false statements.

Many were unaware of the laws governing compulsory school attendance and the penalties they could suffer for non-compliance. In California, these could amount to a fine of \$50, imprisonment of the parents for 25 days, or both (*see section five of box, page 59*).

District and students suffer

The only legally acceptable reason for absence in California is illness and the schools collect ADA for such absence even though the child is not present in class. Even with this provision, however, the loss of ADA revenue from the state because of illegal absences had amounted to approximately \$10,000 in the Salinas district during the school year 1958-59. But this represented only a small portion of the schools' actual losses in teacher time for make-up assignments and tests and in the extra work loads taken on by the attendance officer, deans, vice-principals as well as the clerical personnel.

Even more important was the educational loss to the student. There was no way for him to make up for the class discussions he had missed.

Last September, in a determined effort to put a stop to these losses it considered unnecessary and unwarranted, the school board adopted a formal program of student attendance procedures to be followed in all the district's schools.

are you spending too much— or too little—on MAINTENANCE?

You'll never know until you give your own district's program a thorough-going check. That's what Levittown, N. Y.'s schools did. Result: a saving of \$50,000 annually in maintenance and custodial costs.

■ ■ ■ Can the average school district save money on maintenance? The experience of the District Five Schools in Levittown, N. Y., shows that it can.

Last year, Superintendent Fred Ambellan persuaded two residents—Albert J. Burner, supervisor of cleaning standards for the Port of New York Authority and Gerard J. Riley, executive secretary of the Institute of Sanitation Management—to survey the maintenance operations in his district.

Their study resulted in a \$50,000 cost saving in Levittown's school cleaning and custodial program.

According to Burner, his Levittown results can be applied by other school districts to their own maintenance programs in old or new buildings. Levittown's oldest school was built only 11 years ago, but the survey demonstrated that it is method—not school design—that will trim cleaning costs.

Many schools now rely on "rule of

thumb" systems to determine custodial needs. Often these methods result in inefficient staffing—unequal work loads, overlapping functions, dissatisfied employees. The standards Burner helped develop can do away with such drawbacks in other districts.

But for the re-evaluation to be effective, says Burner, there are certain ground rules that must be laid down and faithfully followed:

1. The superintendent must at all times retain control of the study and revision of his district's maintenance program.

2. In larger districts (five or more schools) he should appoint a coordinator of custodians—usually the assistant superintendent of buildings and grounds—to supervise the program.

3. The coordinator should observe operations at each school, comparing them to the standards set in the Levittown survey.

4. He should meet with the cus-

todians and principals in each building to present recommendations and iron out any difficulties that may arise in their implementation.

5. To prove effective, the new program must continue to be policed. The coordinator, now the standards administrator, has the final say on suggested changes in standards or operations.

How the study was made

Burner & Riley surveyed the 14 schools in the system in order to establish a standard approach for staffing custodial and cleaning positions. Before beginning their examinations, they divided all operations into three categories:

1. **Routine work**—daily activities which could be scheduled for completion at a specific time of the day. These comprise the bulk of the work load and are the determining factor in the staffing of school cleaning and custodial personnel.

2. **Periodic work**—activities per-

formed with lesser frequency, weekly, semi-weekly, bi-weekly or monthly, but scheduled for completion during a specific period of the work day. These jobs are accomplished bit by bit during each work day according to an established daily work routine.

3. Project work—more extensive tasks which required a number of man hours for completion, but were done less frequently. These are not generally scheduled in the daily work routine, but are done during school closings—Christmas, Easter and summer vacations. Included are such items as ceiling and wall washing, cleaning of light fixtures, window cleaning and floor refinishing. Since school closings provide more than enough time for this work, its scheduling is not a determining factor in the custodial staffing of schools.

Elements of study

With their definition of terms established, Burner and Riley began with a study of the operations and standards in effect at a representative school in the system—East Broadway Elementary, grades K-6. Their objective was to establish time standards on the basis of the way in which work was performed—by operation—rather than by a cumbersome unit time inventory system. In other words, every custodial and cleaning operation in the school was observed, suggestions for improvement of methods were made and only then were new work standards set for each job.

Essentially the study consisted of related segments, each developing from what had gone before. An examination of operations as performed in the representative school came first, followed by the establishment of standards for each specific job. Covered here were routine and periodic cleaning, custodial work and a review of project requirements.

Classifying areas

The second stage consisted of the classification of areas—the determination of square footage and other pertinent data for every area in the East Broadway school. Then, by applying the standards established for each cleaning and custodial operation, new work routines were set up (see box on these pages) and

TYPICAL CUSTODIAL WORK ROUTINE DEVELOPED IN

East Broadway School

Daily Custodial Work Routine No. 8

6:00 A.M. to 3:00 P.M.



Work Assigned to _____

Supervised By _____

Area Assignment: Opening of building, boiler start-up, storage of milk, milk delivery to classrooms on A.M. & P.M. shifts, conversion work in general purpose room, corridor sweeping, policing of men's and boys' lavatories.

		ORDER OF WORK
From	To	Description of Work
6:00 am	7:00 am	Unlock doors to building, turn on lights, and start heating system. Bring in milk supply and store in proper refrigerators.
7:00 am	9:15 pm	When activities have taken place the previous evening in the general purpose room, or when the scheduling of assemblies dictates, this period will be used in reconverting the GPR to the normal cafeteria set-up.
		When reconversion of the General Purpose Room is required
		This might entail either the picking-up, folding, and storing of superfluous chairs, the setting-up of tables, and the stripping of stage chairs, tables, podium and microphones, in the event the GPR is found in auditorium arrangement, or the setting-up of chairs and tables in the event that the room has been stripped for a dance.
		The floors on the stage, and in the general purpose and faculty dining rooms are dust mopped during this period.
		During this period, the custodian covering this routine, is normally assisted by the head custodian for approximately one hour. However, in the event that a quick change-over is required by an assembly or unusual activity in the GPR the head custodian will assist in the completion of the job.
7:00 am	9:15 am	When reconversion of the general purpose room is not required, the custodian, during this period, will be available for answering calls, making minor repairs, distributing supplies, and other miscellaneous duties.
		When reconversion of General Purpose Room is not required.
9:15 am	10:45 pm	Distribute milk to the morning sessions in Grades one, two, and three. Empty trash in these classrooms. Pick up empty milk cartons. Burn trash and empty milk cartons in incinerator.
10:45 am	11:15 am	Police boys' and men's lavatory using the following procedure: Pick-up trash and towels from floor. Damp wipe washstands. Supply paper and towels when necessary.

THE MAINTENANCE STUDY OF LEVITTOWN SCHOOLS

11:15 am 12:15 pm Lunch break.
 12:15 pm 1:15 pm Dust mop corridor.
 1:15 pm 2:45 pm Distribute milk to the afternoon sessions of Grades one, two, and three. Also pick up trash and milk cartons and burn.
 2:45 pm 3:00 pm Clean and store tools.



Daily Cleaning Routine No. 1

4:00 P.M. to 12:00 P.M.

Work Assigned to _____

Supervised By _____

Area Assignment: Classrooms 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217; Instrumental music room; kindergartens K1, K2, K3, K4; 200 Corridor and main corridor to clerk's office. Total Square Feet = 23,455

ORDER OF CLEANING Description of Work

From	To	Description of Work
4:00 pm	4:10 pm	Secure truck, two trash barrels, pail of water, cellulose sponge, dust cloth, and dust mop from storage. Wheel to the door of the first classroom to be cleaned.
4:10 pm	10:55 pm	Clean all of the above classrooms, kindergartens, and the instrumental music room, using the following procedure: 1. Dust the horizontal surfaces of the clothes lockers, cubby holes, bookcases, radiator window sills, utility table, and the teacher's desk. 2. Empty pencil sharpener into waste basket. Empty waste basket into trash barrel in corridor. 3. Adjust blinds. Check and lock windows. 4. Using sponge and pail of water, wash erased areas on front and side blackboards. 5. Pick up trash around the sink area. Damp wipe sink with sponge and dry with paper towel. 6. Dust mop floor. Move chairs and desks as necessary. Put sweepings in trash barrel in corridor. 7. Turn out lights and lock classroom door.

**Thirty Minute
Break for Lunch
During this
Period**

**Standard—22 classrooms x 17 minutes each =
375 minutes**

10:55 pm 11:35 pm Dust mop 200 corridor and main corridor to clerk's office.

**Standard—5,000 square feet by eight minutes/
1,000 square feet = 40 minutes**

11:35 pm 12:00 pm Burn trash and clean barrel. Return tools and barrel to storage.

Note: On Tuesdays and Thursdays confine classroom cleaning to dust mopping and the removal of trash. This is accomplished in 3½ hours. The remaining three hours and 15 minutes of the classroom cleaning period is to be spent working with person covering Routine No. 2 in stripping and refinishing the floors in two classrooms.

**Standard—Two classrooms (1,600 square feet) by 140 minutes per
1,000 square feet = 384 minutes**

compared to routines then existing. By shifting personnel allocations in accordance with their newly established standards and work routines, Burner and Riley were able to save 12 man-hours on the after school shift in the East Broadway school and four man-hours on the day shift.

Applying standards

The standards established for the representative school were then applied to each of the 10 other elementary and three high schools in the Levittown district. After allocating personnel according to the new work routines that resulted, similar economies were introduced in these other schools.

After school routines

Routine daily cleaning at East Broadway on the after school shift, which was examined first, included the following operations: classroom cleaning, trash disposal, lavatory (complete), corridor and lobby sweeping, mopping of locker and shower room floors, stripping and refinishing of classroom floors and gymnasium sweeping. Here are the observations, suggested changes and time standards of each operation as they were presented by Levittown's consultants:

Classroom cleaning: entailed adjusting windows and blinds, emptying pencil sharpener and waste basket, dusting window sill, washing blackboards, damp wiping sink, sweeping floor—moving chairs and desks as necessary. The average time per room—12.2 minutes—was deemed inadequate since dusting, which was confined to window sills, did not cover clothes lockers, cubby holes, bookcases and radiators. A thorough dusting of these surfaces with a treated dustcloth was considered a necessary addition to the cleaning procedure, so the standard for complete daily cleaning of classrooms was set at 17 minutes each. It was also recommended that dust mopping with treated cotton yarn mop heads, or with a special sweeping tool and sweeping towels, be substituted for the existing sweeping method. The recommended procedure took no longer to perform, was superior in dust pick-up and cost no more than push-brushes and sweeping compound.

Trash disposal: included those



operations required after waste has been collected from classrooms and offices: transporting barrels to incinerator, emptying them, burning trash and cleaning and sorting barrels. The performance standard set for maximum work (two barrels): 15 minutes.

Lavatory cleaning: time allocation for each commode, urinal and wash basin, permitting the completion of all operations in the thorough cleaning of lavatories: three minutes.

Corridor and lobby sweeping: the use of a 36" dust mop in a continuous stroke with the mop head not being lifted from the floor was noted and approved, but it was suggested that the mop head be treated with a dust catching compound. Maximum standard for dust mopping unobstructed areas: eight minutes per 1,000 square feet.

Mopping and rinsing locker and shower room floors: lavatories were not considered here since the three-minute-per-fixtue standard, given

above, covered complete lavatory cleaning. In a single man operation, 1,300 square feet could be mopped and rinsed in one hour. Or, in other terms, the standard: 46 minutes per 1,000 square feet.

Stripping and refinishing resilient floors in classrooms: this was defined as project work to be carried on during school closing vacation periods. Because of increased classroom use under double session activities, however, it was suggested that additional floor stripping and refinishing be done periodically to supplement such project attention. Scrubbing and refinishing time on week day evenings was made available by reducing classroom maintenance to dust mopping and trash removal on two days per week. (See box, page 63.) The standard set for laying down solution, machine scrubbing, picking up spent solution, rinsing and applying two thin coats of wax: 240 minutes per 1,000 square feet.

Sweeping of gymnasium: per-

formed in the same manner as corridor sweeping, with same set standard: eight minutes per 1,000 square feet.

School hour routines

Routine daily cleaning during the school hours shift was of a lighter nature because classes were in session. Routine tasks that could be accomplished during this time included:

Office cleaning: including offices, guidance and health areas, faculty room, arts and crafts room and library. Emptying and damp wiping ash trays, emptying waste baskets, dusting horizontal and vertical surfaces and dust mopping resilient floors were all included in the standard set for this type of area: 31 minutes per 1,000 square feet.

Policing lavatories: not to be confused with thorough cleaning which was done by the after-school shift. Policing included damp wiping of wash stands, pickup of paper and

continued on page 120

IN-SERVICE CUSTODIAL TRAINING

One way to insure uniform maintenance standards throughout a district is to establish custodial training schools. These in-service training sessions provide two important services. They acquaint trainees with the system's maintenance standards and cleaning techniques and they permit regular employees to brush up on their knowledge of these operations. The two services combine to provide the district with something even more important: the assurance that all custodial jobs will be handled in the same way, according to an established procedure.

One such training program is in effect in Yonkers, N. Y. The custodial training program is located in the district's newest school building. There, trainees are shown how to perform daily routines—cleaning, sweeping, dusting, mopping—as well as how to operate the many cleaning devices and machines in use.

At least half an hour per week is devoted to an analysis and discussion of training procedures, the housekeeping manual and the code of rules and regulations. Emphasis is also placed on storage, using and ordering supplies and the purchase of materials and equipment.

To gauge training program results, rating sheets

for each trainee are filled out weekly by the custodian-instructor. These evaluations are discussed with the trainee prior to being entered on his record. In this way he is advised of his deficiencies and helped in correcting them. All new employees are on probationary status during their training period. This encourages them to do their best, since the evaluations they are given play a major part in their being appointed to permanent positions.

Two years ago a summer seminar in custodial techniques was added to supplement the regular training program. At these summer sessions manufacturers, safety engineers, civil service personnel and custodial experts provide up-to-date information on supplies, methods of handling new equipment, procedures for using new materials, safety techniques and other topics of importance to the custodial staff.

The benefits that have resulted from the institution of the training program in Yonkers include: a definite set of job standards used to establish work schedules in individual buildings; improvement in the overall morale of the custodial staff—new men now go into assignments secure in their knowledge of the job; a noticeable rise in efficiency; and a reduction of maintenance costs.

A PORTFOLIO OF
"LITTLE SCHOOL" PLANS





If you are contemplating construction of a new high school—or if you're examining the curriculum in your present one—it will pay you to consider the growing “little school” idea. In this article we present nine different ways to design a high school that will combine the economy of a big school with the advantages of a small one.

■ ■ ■ A few months ago, SCHOOL MANAGEMENT reported on the growing trend towards organizing large high schools into “schools-within-a-school.” (See SM, Aug. '59.)

During the last few years this exciting new method for organizing and administering schools has been gaining rapid acceptance. The method goes by many names, but is known chiefly as “the little school plan,” “the school-within-a-school,” and the “house plan.”

Here, in a nutshell, is how the plan works: the large high school is subdivided into two, three or four little schools, each with its own faculty. Each student is assigned to one of these units. In most cases the students take all their required academic courses in the little school, with its smaller staff and student body. Other courses, demanding specialized facilities, are taken in *central facilities* from a faculty which serves all of the little schools.

Exactly which courses will be taken in the little school, and which in central facilities, will vary from plan to plan. But whatever division is used, two very fundamental advantages accrue:

1. More individual attention is possible. A student is less likely to become “lost” in the crowd.

2. The virtues of a large high school—a broader curriculum, specialized facilities and a stronger faculty—are economically possible.

How they're organized

The basic little school idea can be used to organize a large high school in a variety of ways. For example, there are “vertical” schools. Under this set-up, it is common to have parallel schools housing, perhaps, grades 10 through 12. Students would spend three years, progressing through high school, in their own little school, utilizing the same faculty throughout those years. This is

the most common way to organize.

Some schools are organized “horizontally,” or by grade level. In this case, students in the 10th grade would be housed in one building, while students in the 11th grade would be in another, and those in the 12th grade in still another. This type of plan is frequently complicated by the fact that there may be population variations in each grade.

A compromise organization is found in some four-year high schools which have organized two “lower” little schools for grades nine and 10, and two “upper” schools for grades 11 and 12. In this case, students in the two lower grades are arbitrarily split into two groups and the same is done with the upper grades.

Housing problems

The buildings for a little school organization can take almost any shape. Some are multi-storied, some single-storied, some campus plans. New buildings can be designed for the idea; old ones adapted to it.

Perhaps the major economic advantage of the little school plan lies in its ability to use specialized facilities for large groups of students, all of whom are, in effect, attending small schools. Some areas—gyms, auditoriums, kitchen facilities and playing fields—are almost always shared. But others, such as science, may be treated one way in one district, other ways in others.

In White Plains, N. Y., for example, all sciences are taught in a *central* facility, although all other academic courses are confined to the little schools. In Newark, Ohio, only advanced science courses are taught in central facilities. Garinger High School, in Charlotte, N. C., has completely decentralized its science facilities, and every little school has its own laboratory facilities.

Guidance facilities are commonly moved into the little school. Thus,

the central administrative offices can be kept small. In many cases the large cafeteria is being eliminated and food is moved to the little schools from a central kitchen.

The library can be kept as a central unit or decentralized and put into the individual schools. In two schools, typing has been taken out of a central business education department and made a part of the little school curriculum.

Curriculum, schedule and manner of organizing units have a great bearing in determining size. Variations range from 200 to 600 students in a little school. It is likely that the smaller size will be part of a junior high or two-grade organization. The more thoroughly decentralized senior high school usually has 450 to 600 students per unit.

A new idea?

The little school organization has roots at least as far back as the medieval university or the competing Athenian philosophers, each with his own small student group. High schools such as Evanston Township, Ill., and Julia Richman and Forest Hills in New York City, have long histories in this approach.

Acceptance of the little school idea seems no longer an issue. The problem is how to house it.

The editors of SCHOOL MANAGEMENT approached the firm of Engelhardt, Engelhardt, Leggett and Cornell, educational consultants, and long-time advocates of the little school idea, to learn how schools on which they had worked solved the problem.

Presented on the following pages are nine examples of buildings housing the little school. No two are alike and yet each is identical in one important manner—a large school has been broken down into smaller units to combine economy of operation with intimacy of teaching.

1

A portfolio of
little school plans

All grades in one building

West High School, Topeka, Kan.

Superintendent: Wendell Godwin

Architects: Ekdahl, David & Depew,
Topeka

Educational consultants: Engel-
hardt, Engelhardt, Leggett & Cornell

Food Service Consultants: Flambert
& Flambert

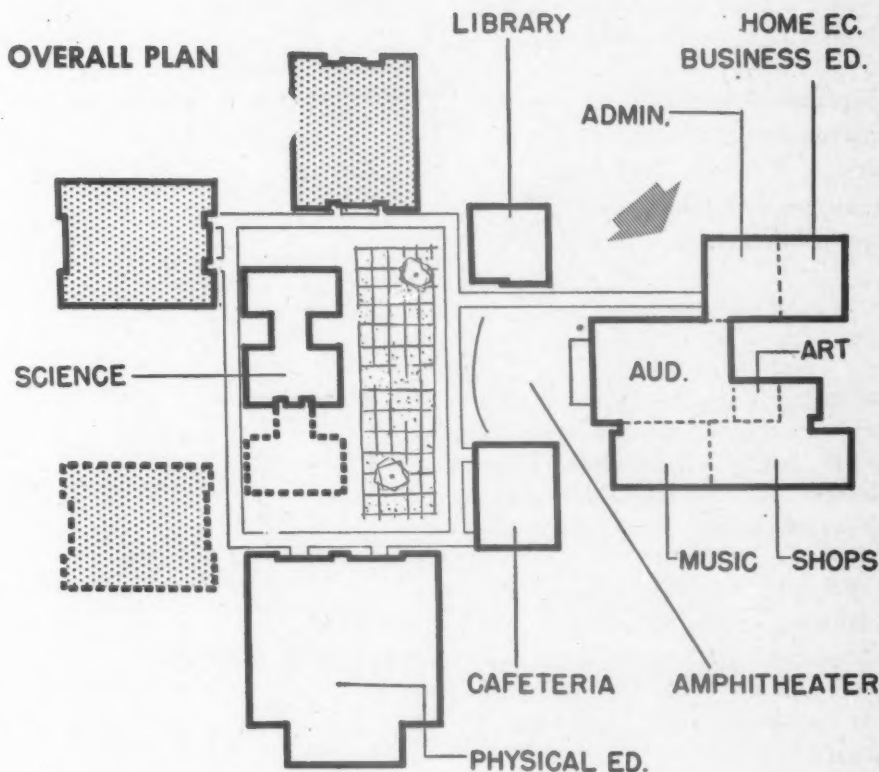
■ ■ Topeka's West High School serves as a good example of vertical organization. It is being constructed to house 1,350 students in three little schools, with grades 10-12 in each school.

The 450-student little school units (shown in color on overall plans) contain standard classrooms, a large extra classroom and meeting area, extensive guidance space and a typewriting room.

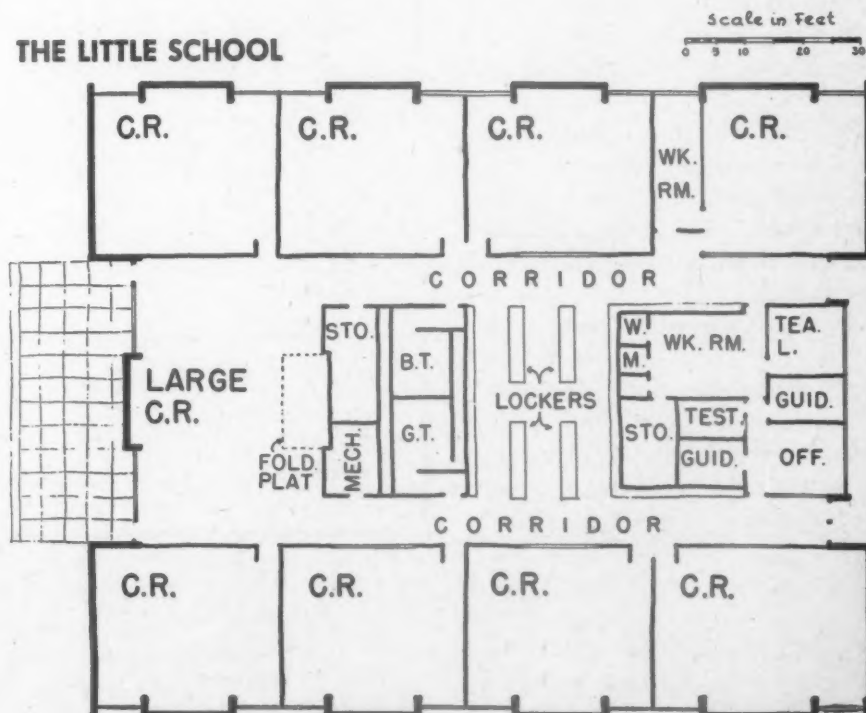
Science, library, cafeteria and gymnasium facilities, shared by the little schools, are housed in separate buildings clustered around a courtyard. The central administration building is small, since emphasis is placed on the sub-administrative quarters and guidance facilities in each little school.

Typewriting has been taken out of the business education building and placed in the little schools because it is being taught as a basic personal communication skill, rather than just as a business medium. Typewriters are available to students during the day for writing papers and other work of that type.

Two of the little schools are being put into operation first. The third will be constructed when student enrollment expands.



THE LITTLE SCHOOL



2

A portfolio of
little school plans

Each grade separated

Welsh Valley Junior High School,
Lower Merion Township, Pa.

Superintendent: Philip U. Koopman

Architects: Harbeson, Hough Livingston & Larson, Philadelphia

Educational Consultants: Engelhardt, Engelhardt, Leggett & Cornell

■ ■ The little schools in this plant are organized horizontally (by grade levels). Each little school houses 250 students, with separate units for grades seven, eight and nine.

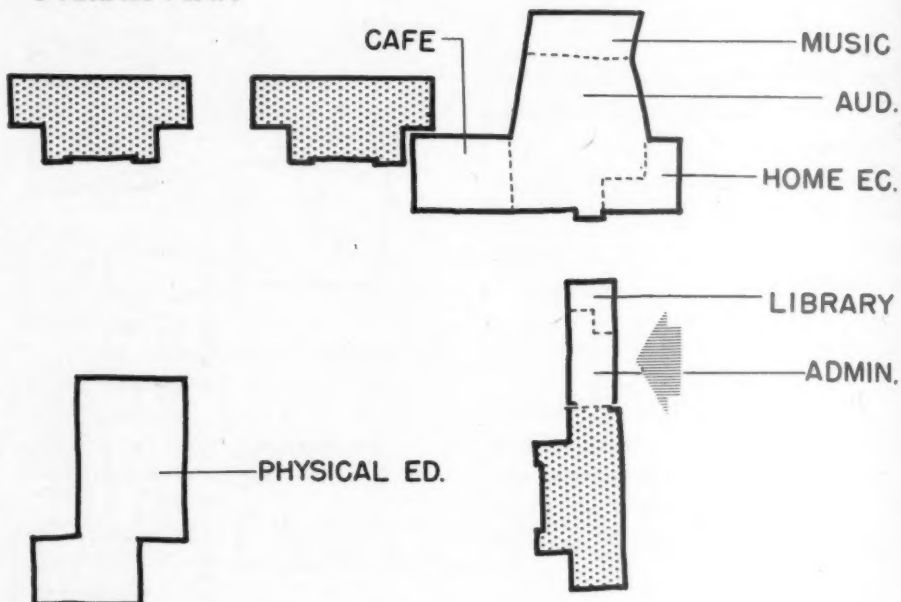
English, history, science and mathematics, the four basic subjects taught at all grade levels, are housed in the little schools, which are known as Basic Instructional Centers.

Classrooms, science facilities and a creative arts room that has been planned so that large-group teaching as well as art projects can be accommodated, are housed in each little school.

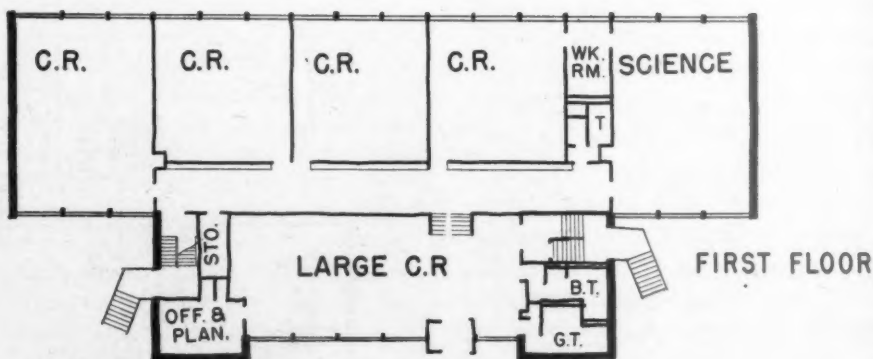
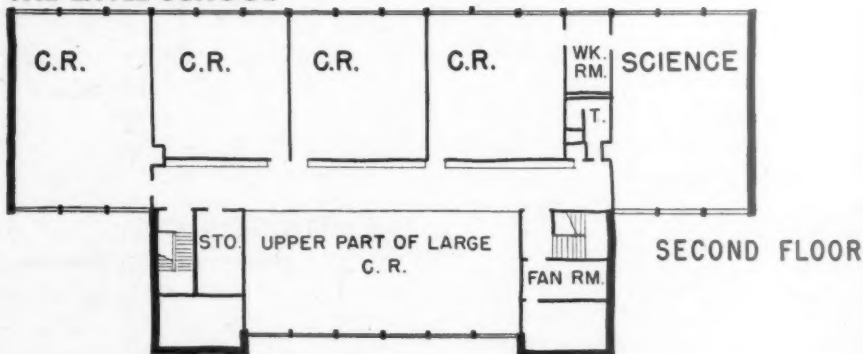
Physical education, music and home economics are taught in separate buildings used by each of the little schools. Central library, cafeteria and administration facilities are also shared.

By separating each grade level into its own building, the Lower Merion school has made it possible for teachers to work with small groups or individuals to an extent not possible in the typical block schedule of most junior high schools.

OVERALL PLAN



THE LITTLE SCHOOL



Scale in Feet
0 10 20 30

3

A portfolio of
little school plans

Grades divided and combined

Massena High School, Massena,
N. Y.

Superintendent: Walter S. Wilson

Architects: Sargent, Webster, Crenshaw and Folley, Watertown, N. Y.

Educational Consultants: Engelhardt, Engelhardt, Leggett & Cornell

■ ■ A four-year high school for 1,600 students, this plant has four little schools, two for grades nine and 10, two for grades 11 and 12. Students from the two lower grades are mixed together in their buildings, as are students in the upper grades in theirs.

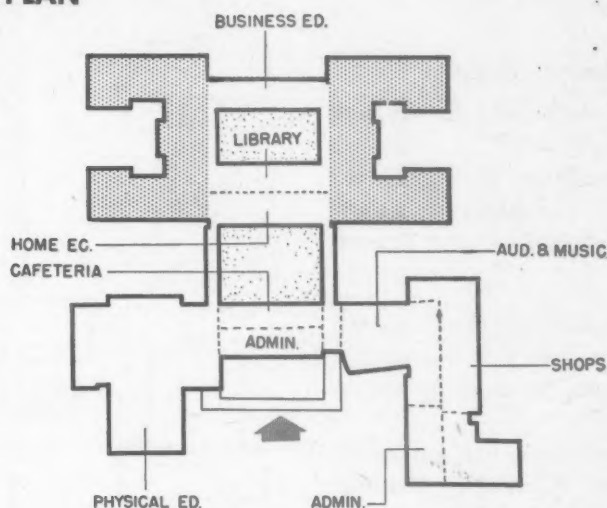
Each little school contains classrooms, science laboratories, guidance offices, a curriculum workroom, a large classroom and an assembly-lunchroom which is shared with its neighboring little school.

The large classrooms are used for large-class teaching, audio-visual presentations, science, art, reading and similar activities. The shared assembly-lunchroom is also used for study halls, testing, plays, speech classes and audio-visual presentations.

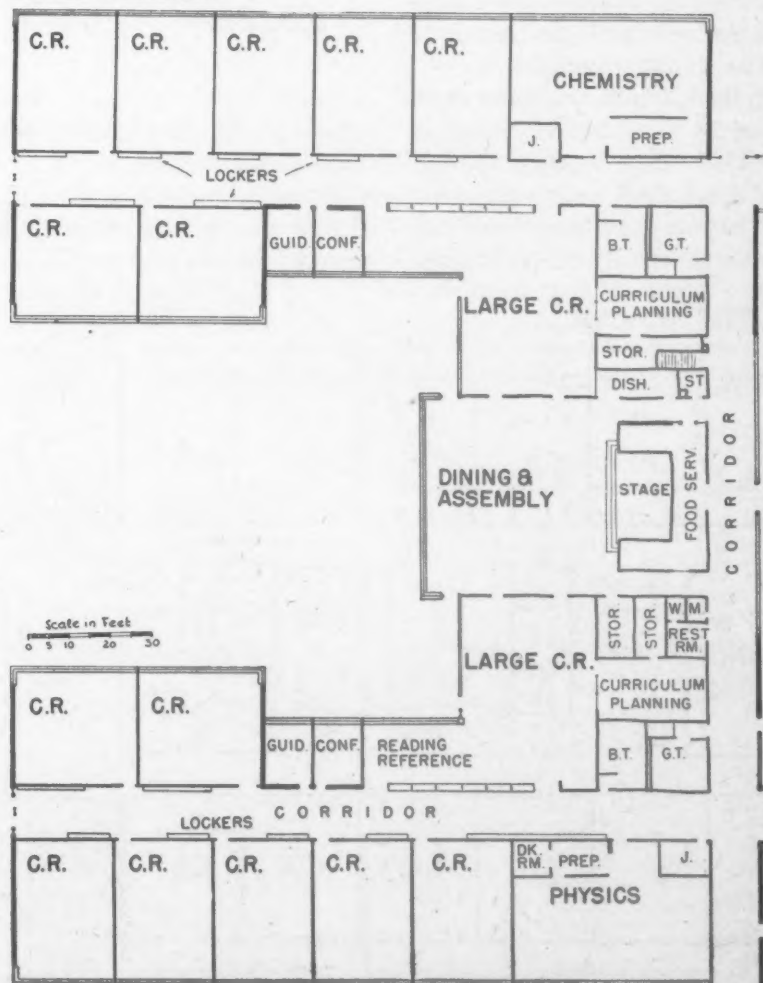
Food is prepared for all the schools in a central kitchen. A small dining area, connected to a general student center, can be used by students who are outside of their little schools during the lunch hour.

Shared facilities include a five-station physical education area, music, shop and home economics facilities, administration headquarters, a room housing the school's IBM equipment and a large central auditorium.

OVERALL PLAN



THE LITTLE SCHOOL



4

A portfolio of
little school plans

Built on a limited budget

Riverview Gardens, Mo.,
High School

Superintendent: E. M. Lemasters

Architects: Hellmuth, Obata and
Kassabaum, St. Louis

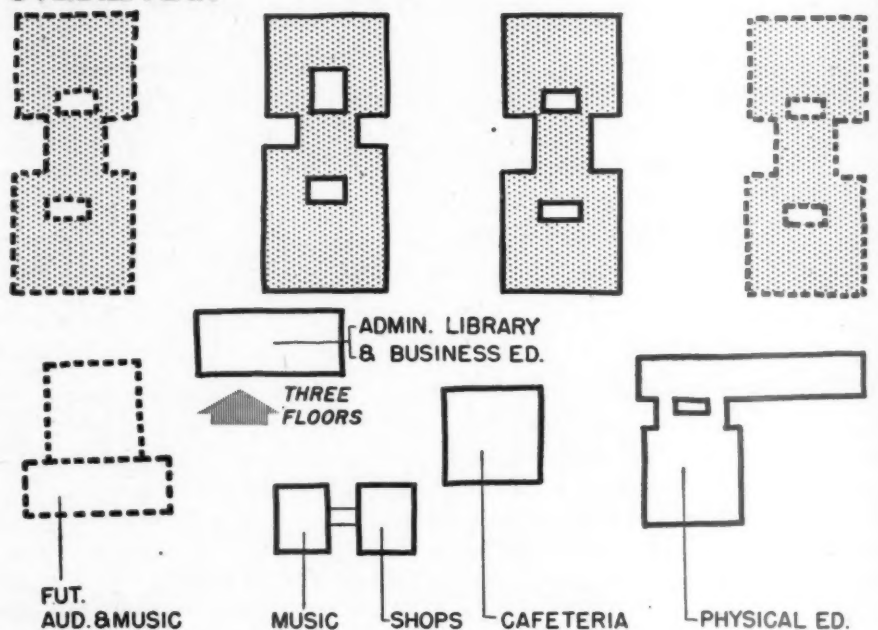
Associate Architect: W. P. Manske
Educational Consultants: Engel-
hardt, Engelhardt, Leggett & Cornell

■ ■ This school demonstrates the way in which little school construction helps districts working within limited budgets.

Planned to ultimately house 2,400 students, the Riverview Gardens school was started with just \$400,000 in construction money available. Six of the buildings have been completed now and the school is suited for 1,200 students.

One little school was built first, followed by the cafeteria. Shops, a physical education building and the second little school were constructed next. The fourth building stage saw the construction of the three-story

OVERALL PLAN

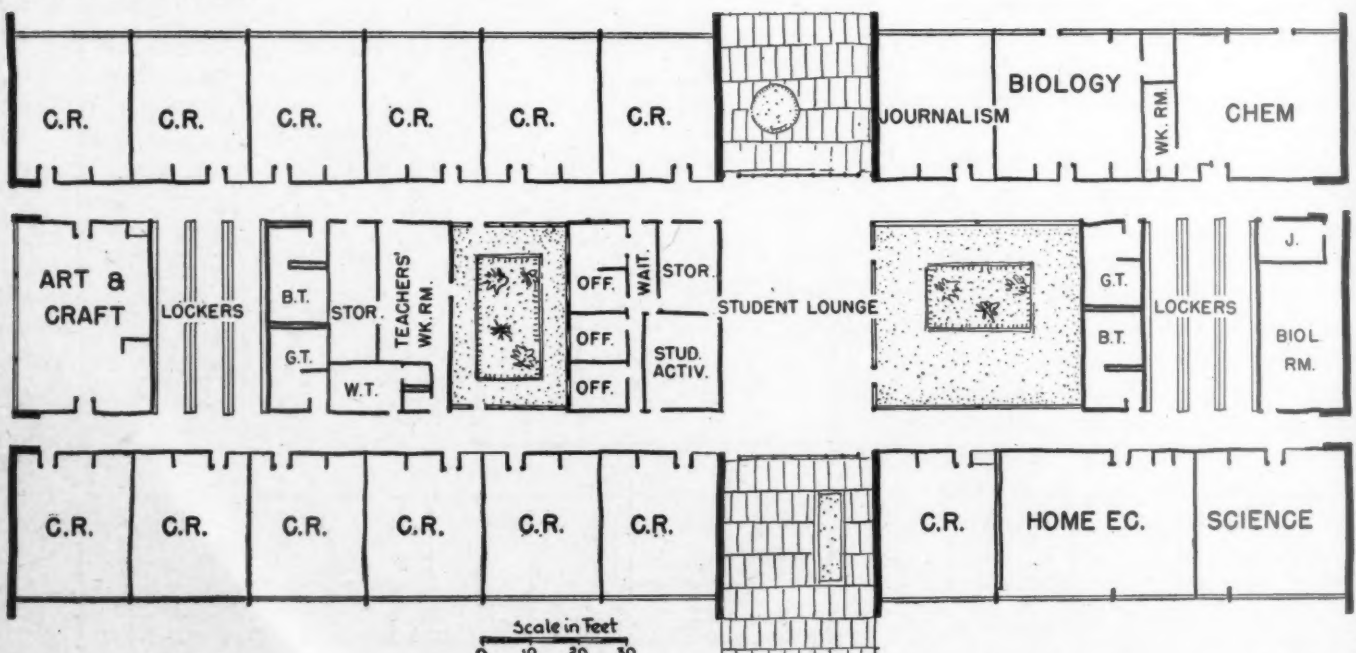


administration building, housing business education, library and student activity facilities.

Each little school is of a different design and includes science, home-making, art and guidance areas. The

little schools are one-story buildings but because of an uneven site, they are on a level with the second—library—floor of the administration building. Each little school houses students in grades 10 through 12.

THE LITTLE SCHOOL



5

A portfolio of
little school plans

Science facilities in each little school

Garinger High School,
Charlotte, N. C.

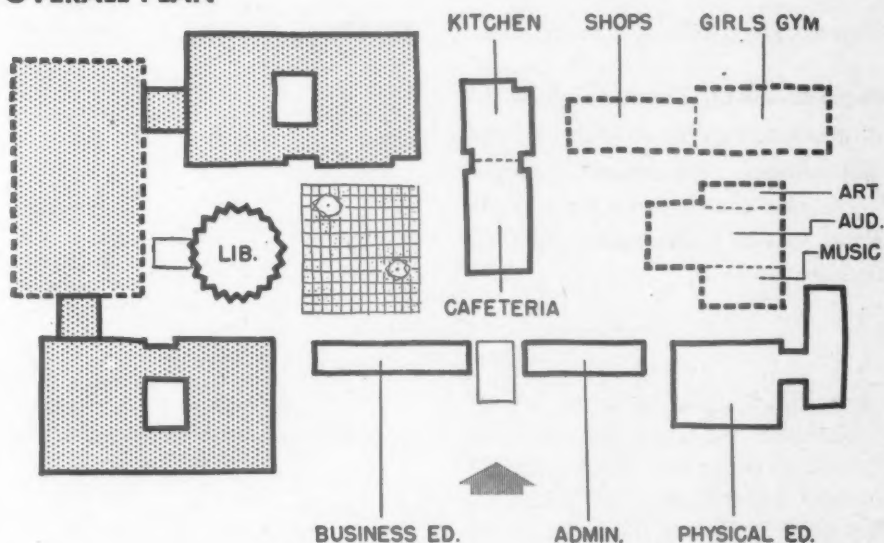
Superintendent: Elmer H. Garinger
Architects: A. G. Odell & Associates, Charlotte

Educational Consultants: Engelhardt, Engelhardt, Leggett & Cornell
Food Service Consultants: Flambert & Flambert

■ ■ There are no central science facilities in this 1,800-pupil school. All science rooms—as well as guidance and counseling areas—are in the individual little schools.

Each little school—only two are in operation right now—houses 600 students. The school was planned so that it could be constructed in four stages, as funds become available. Two little schools, the library, cafeteria and physical education building were built first. Administrative offices and the business education building are also in operation now. The third little school is presently under construction and work on the

OVERALL PLAN



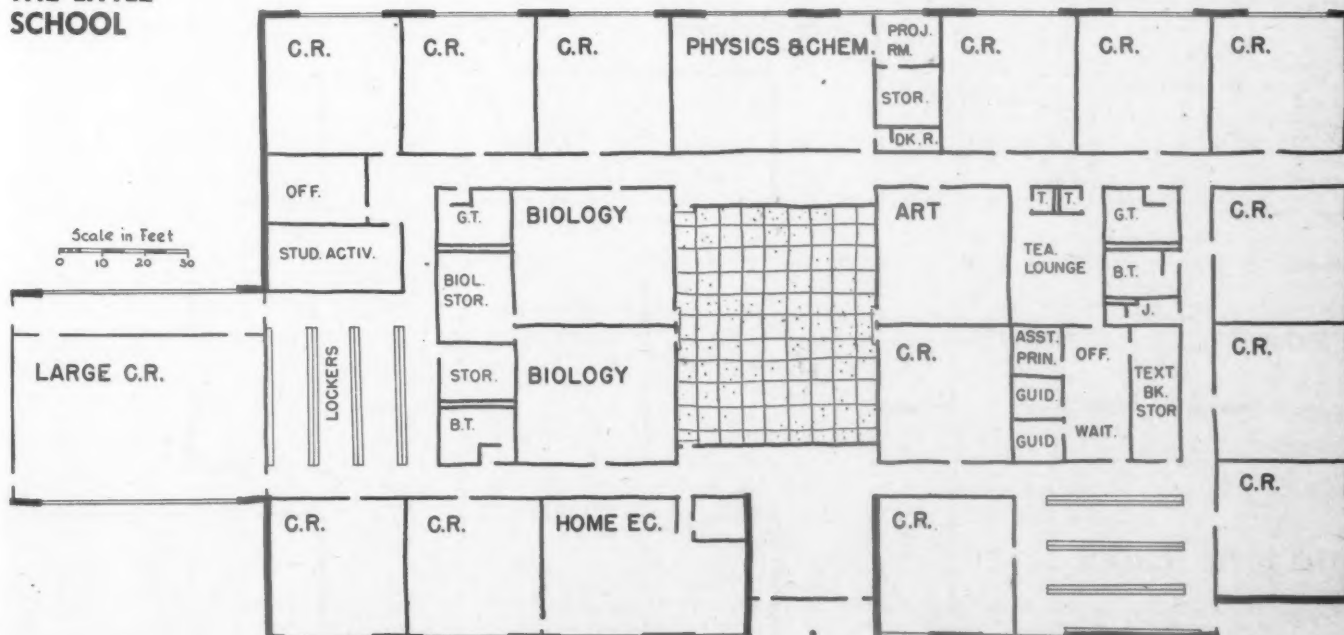
shops and girls' gym is expected to start shortly.

The multi-storied library is the focal point of a lower campus that contains the little schools. Each little school is connected to the next by a large classroom which is being used for teaching by television.

The cafeteria uses a "scramble" system and the dining area, on three floor levels, is heavily used by students for social activities, including dancing, during the lunch hour.

The school operates on a nine-period day with no uniform time when all students report to school.

THE LITTLE SCHOOL



Office space for teachers

Newark High School, Newark, Ohio

Superintendent: Thomas Southard

Architects: Perkins & Will, Chicago

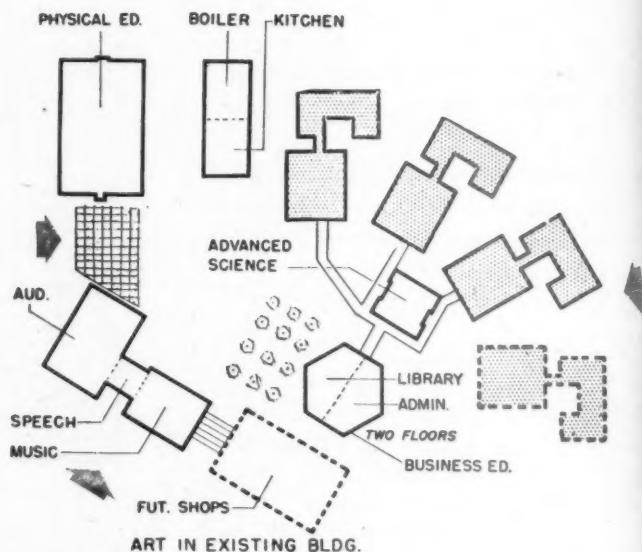
Educational Consultants: Engelhardt, Engelhardt, Leggett & Cornell

Food Service Consultants: Flambert & Flambert.

■ ■ This 1,800-student high school—designed for easy expansion to 2,400—is organized in little schools of 600 students each, in grades 10 through 12. Each of the little schools has a two-story classroom section.

The classrooms have been designed so that each pair of rooms is separated by an office for three teachers, storage area and a conference room. By emphasizing adequate space for professional teachers, with special storage and counseling room, the school expects to further overcome the problems of size.

OVERALL PLAN

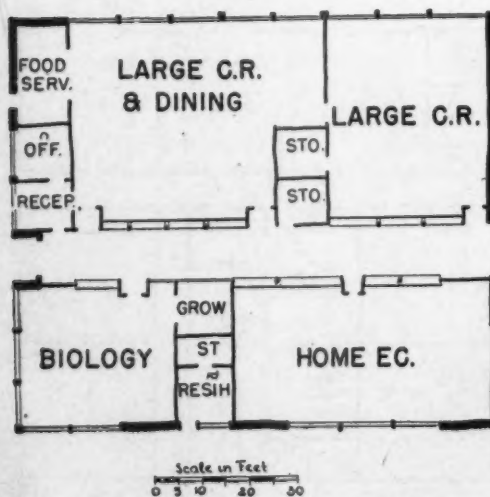


It is interesting to note that there are only 10 classrooms in each little school, though they are used by 600 students. No attempt has been made to provide a homeroom for every student.

The little schools are grouped about the two-story central building, housing library, business education and administrative facilities. A spe-

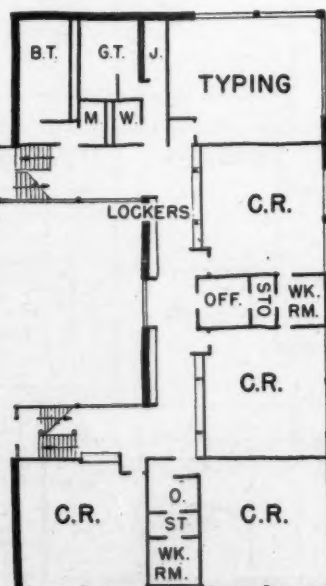
cialized science building is also within easy range. Speech, music, physical education and shop are also taught in common facilities.

Each little school contains classrooms; typing, biology and home-making rooms; a large classroom seating 100, and a dining room. Each of the dining rooms is served from the central kitchen.

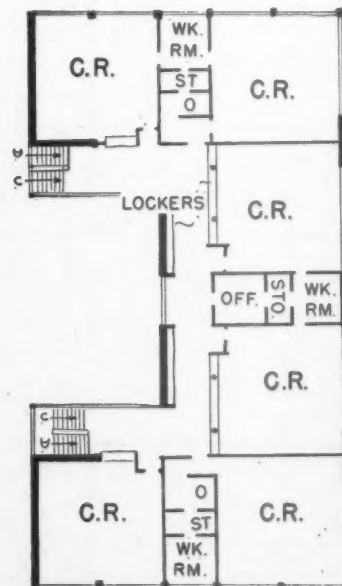


THE LITTLE SCHOOL

FIRST FLOOR



SECOND FLOOR



SCHOOL MANAGEMENT

7

A portfolio of
little school plans

In a single building

Brecksville High School, Ohio

Superintendent: Cecil Burnett

Architects: Outcalt, Guenther &
Assoc., Cleveland

Educational Consultants: Engel-
hardt, Engelhardt, Leggett & Cornell

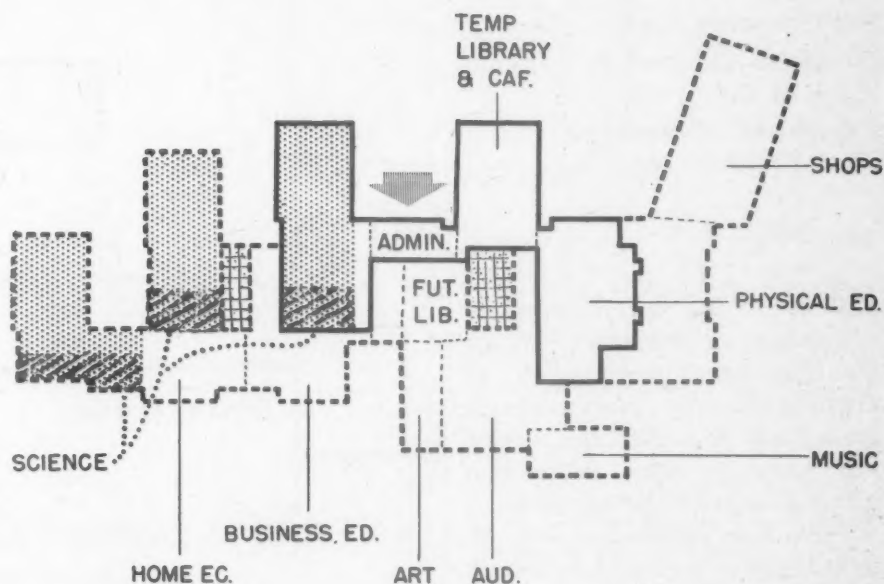
■ ■ The Brecksville "schools-within-a-school" plan will be just that. Three 600-student little schools will be housed under a single roof with all of the high school's other facilities.

Despite the fact that the ultimate school will be all one building, construction is being done little by little. Because the present need is only to house 600 students, one little school, the cafeteria, administration area and physical education facilities are all that are being constructed in the initial phase. The full cafeteria was constructed and has been temporarily subdivided to provide library, business education and music facilities.

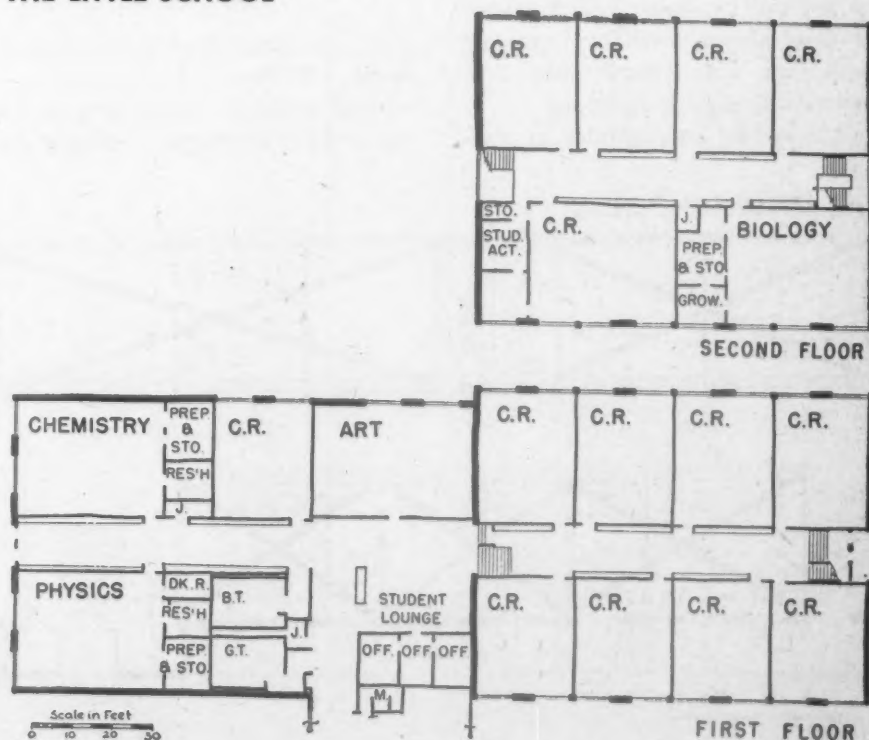
Each little school will contain classrooms, a large classroom, science spaces and guidance offices. Although the little schools contain exactly the same components, each has been designed differently. Two-story construction was necessary because of a difficult site.

The science facilities in each little school have been so planned, along a single interior corridor, that it would be possible in the future to form a single centralized science "department" to be used by students from all of the little schools.

OVERALL PLAN



THE LITTLE SCHOOL



**Goodrich High School,
Fond du Lac, Wis.**

Superintendent: *Harold C. Bauer*

Architect: Sylvester J. Stepnoski,
Fond du Lac

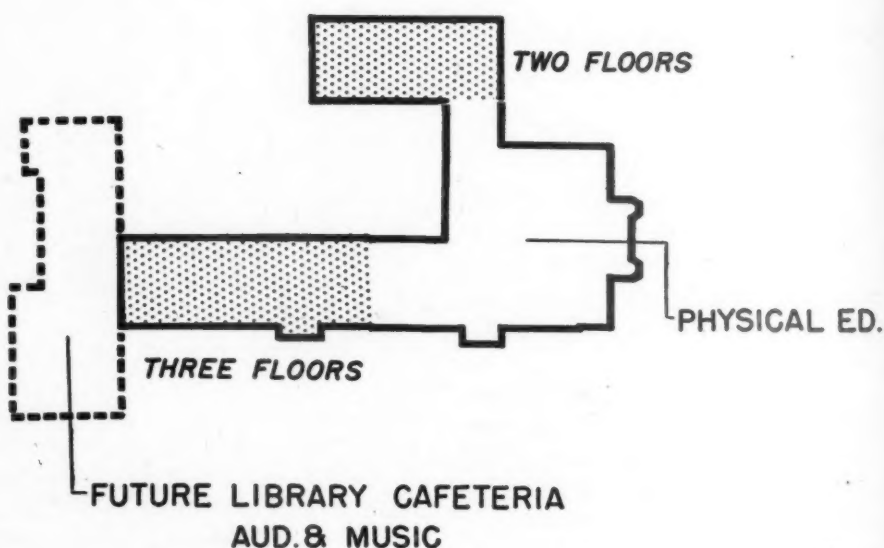
Educational Consultants: *Engelhardt, Engelhardt, Leggett & Cornell*

■ ■ It is not always necessary to construct a new building to house the little school organization. In Fond du Lac, Wis., plans are being studied now to convert the existing high school to house junior high school students in little schools.

Three little schools would be included, two in a three-story section of the building, the other in a two-story section. Classrooms would be enlarged and each school would be provided with an out-size classroom for audio-visual, lecture and other large-group sessions. Plan in black (*below*) shows how classrooms are now. The color shows how they would look after remodeling.

The special areas needed to com-

OVERALL PLAN

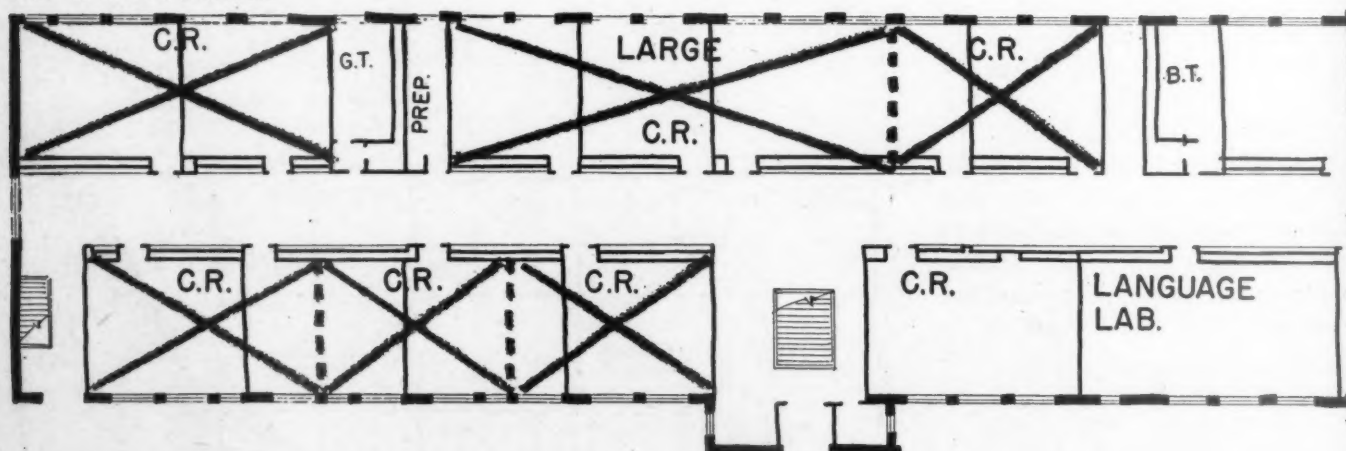


plete the program—auditorium, library, cafeteria and music room—can be added in a new wing which will retain the compact building de-

sign demanded by the area's climate.

If the plan is adopted, each of sign demanded by area's climate.

THE LITTLE SCHOOL



Scale in Feet

Built for the future

Parallel little schools have been planned for future expansion.

OVERALL PLAN

The diagram shows the overall layout of the school building. It includes the following areas and their connections:

- PHYSICAL ED.**: Located at the bottom left, connected to the main building by a long corridor.
- HOME EC.**: Located in the upper middle section.
- ART**: Located below HOME EC.
- SHOPS**: Located at the top right, connected to the main building by a long corridor.
- MUSIC**: Located to the right of HOME EC.
- AUD.** (Auditorium): Located below MUSIC.
- ADMIN.** (Administration): Located below the AUD.
- LIBRARY**: Located below the ADMIN.
- BUSINESS ED.**: Located at the bottom right, connected to the main building by a long corridor.

The building is divided into several wings, with corridors connecting the different departments. The layout is designed to be efficient and functional, with a central corridor system.

75





The Lennox Living Laboratory: This \$50,000 school has been built by Lennox Industries, Inc. in Des Moines, Iowa to carry on research in the field of school classroom heating, ventilating and air conditioning. Extensive research and testing is carried on continuously, both with and without students present in the classrooms.

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(Circle number 703 for more information)



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EXPLORATIONS

IN

EDUCATION

On scheduling visits
for school parents

On reading programs

On foreign languages
in elementary schools

The following case histories were submitted by readers in districts where schools are better utilizing staff, space or time. They are presented as part of a joint project with the Teacher Education Committee of the Massachusetts Association of School Committees.

PARENT VISITS ENCOURAGED DURING FULL SCHOOL YEAR

WE BELIEVE IN THE IDEA of having parents visit classrooms to see the work their children are doing, but all too often these visits are scheduled in a single day or week of madhouse activity. The results of visits under these conditions are frayed nerves, a distorted view of what is going on in the classrooms and a sigh of relief from teachers who are finally able to get back to work, after the parent visitations are over.

Three years ago we inaugurated a parent visitation program based on definite invitations. Parents were invited to visit the school on a particular day. Invitations were mailed out giving a seating chart of the class to be visited, a class schedule and a suggested visiting day. Three to five parents were listed for a given day.

Visits were scheduled daily except for Friday. As a result, within a two-week period, every parent in a classroom had an opportunity to visit the class in session.

With just a few visitors coming in each day, it became possible to provide chairs for them, to invite them to accompany the children to special classes or to meet individually with the teacher.

Parents were also urged to stay for lunch and learn about our cafeteria operation.

During the first year we put our program into operation, more than 50% of our parents visited. Last year the program was extended to include students in kindergarten, as well as the first six grades. Four hundred and fifty parents attended classes. We have a total school enrollment of 750.

During the 1958-59 school year, we tried to vary our invitation procedure somewhat. In grades three, four and five, we elected three mothers of the week, and their children took home invitations for them to come anytime during the week. In the sixth grade, we mailed home invitations, as before. In the first and

second grades, children carried home letters of invitation and the program was restricted to a one or two week period for each classroom. Kindergarten parents were invited to come at anytime, with special emphasis on the end of the year.

Reaction to this program has been good from teachers and parents. Teachers have remarked that they are so used to a few visitors in the room now that they are hardly noticed. As a result, parents get an opportunity to see a regular classroom session, rather than a special program planned for their benefit.

Parents, too, are happy with the program, particularly with the special invitations sent to their homes. They feel that we really want them to visit and that they are getting more out of the time they devote to visiting.

We feel that in this day of rising costs, budgets, etc., that it behooves us as school teachers and administrators to keep our public informed of what we are doing. This is one way of doing it.

Reported by Gail N. Chapman, elementary supervisor, Randolph Central School, Randolph, N. Y.

PARENTS PAYING SALARIES FOR ELEMENTARY SCHOOL FRENCH

AN EXPERIMENT IN FOREIGN language instruction being carried out this year in five Akron, Ohio, public elementary schools has two unusual features—every pupil in grades one through six is studying French, and the teachers' salaries are being paid by parent-teacher associations.

Purpose of the project is to determine whether or not foreign language instruction should be provided for elementary-school pupils in the city, and, if so, at what grade levels they will profit most from the experience.

The PTA-financed classes were initiated two years



continued

ago at Fairlawn School. The project proved so successful that a second school was added last year, and three more have joined this year.

Participating pupils, more than 2,700 of them, learn French in their regular classrooms from a teacher who visits each room three times a week. The direct method of instruction is used, emphasizing oral-aural skills. Lessons run 15 minutes for grades one through three and 20 minutes for grades four through six in five of the schools. One school is using 25-minute periods at all grade levels.

Achievement tests are given from time to time and the results are sent home to parents, but report cards and permanent records do not carry foreign language grades. The program is not considered to be a permanent part of the curriculum.

Administratively, the program operates under the

following agreement between the board of education and the PTA groups.

■ The foreign language teacher's salary is paid directly by parents, who assess themselves a tuition fee of \$10 per child per year. Money is collected before the teacher is hired.

■ Parents select the teachers, but the school district teacher personnel office must evaluate their qualifications and give approval.

■ The teaching schedule and program of instruction must be approved by the assistant superintendent in charge of curriculum and instruction.

Participating teachers are paid salaries corresponding to the schedule for regular employees of the school district, but they do not participate in retirement, tenure or other benefits.

All five of the currently employed elementary French teachers have extensive backgrounds in foreign languages. One taught French and English in Egyptian schools. Another formerly resided in a French possession. The participating teachers were recruited by parents.

An evaluation of the project last spring indicated that children were making significant progress in acquiring a second language. The instructional program was favorably reviewed by a team of language experts from nearby universities and schools. Questionnaires

continued on page 87

Here's what we're doing in our district

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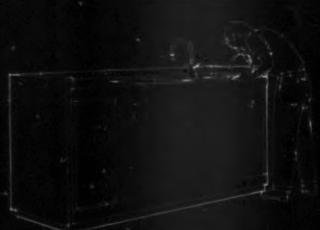
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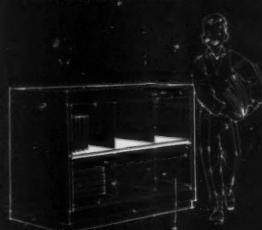
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answered by parents and teachers indicated a high level of approval.

The present program is considered experimental and temporary. Parents undertook sponsorship on a three-year basis, and that period will have elapsed at one of the schools this spring.

By the end of the current year an extensive appraisal of the experiment is planned to determine future board of education policy with respect to elementary school foreign language study. Among the decisions to be made will be whether to continue instruction at all grade levels, whether to extend the program to other schools, and whether to teach languages other than French.

Broadcasting is being considered as another means of extending foreign language instruction to grade-school children. French lessons are being used by radio in 10 other Akron elementary schools.

Reported by Wayne M. Carle, Executive Director, Research and Information, Akron, Ohio.

READING PROGRAMS IMPROVED BY NEW APPROACH, MACHINES

READING PROGRAMS in the widely separated districts of Bowling Green, Ky., and Westwood, N. J., have been improved this year through the use of new approaches and, in one case, a reading machine.

In the Bowling Green City Schools, students in the first seven grades—the program will be extended to the eighth grade next year—are feeling the effects of a new approach to the teaching of reading.

Under this approach, no student is pushed into the "next" basal reader before he has actually completed the one he is working in. For example, a child may be in the fourth grade but will be reading from a book in the basal series which is written at the third, or even second, grade level. When he finishes this book, he will advance on to the next one in the series, no matter at what time of the year he reaches it. Students are encouraged to go as fast as they can, but there is no pressure to finish "on time."

Supplementary reading books are pegged a grade or two below the student's reading level so that he can use them for successful independent reading.

As a result of this new reading program, Charles Kincer, director of instruction for the city school system, reports an increasing interest in reading among the system's children.

In Westwood, the Charles De Wolf school is utilizing a reading machine to help determine the reading level of its students. The machine was donated by the PTA.

As a result of testing done with this machine, each student in the school is being taught reading at the level for which he is ready. Comprehension and speed of reading have been increased and students who had been having difficulty in reading have shown renewed interest and ability in the program.

Reported by Charles L. Kincer, director of instruction, Bowling Green City Schools, Bowling Green, Ky., and Principal Martin G. Podmayer, Charles De Wolf School, Westwood, N. J.


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How to plan a school

■ ■ ■ This carefully planned book is intended to guide school officials who are about to build a new school. It is safe to predict that it will have dramatic effect on the design of any school planned *after* reading it. For, unlike so many "how to do it" publications that emphasize the structural and physical factors in a school, this book focuses on the school's plan as a reflection of the educational program. *It talks about teaching children*—and when it does consider cost, materials or design, it is in terms of how these factors help children to learn.

The authors are a group of experts brought together by AASA because each had a particular claim to fame on the subject he was asked to han-

dle. This idea is sound, and while it produces a certain unevenness of style and continuity, it in no way diminishes the value of the book for the thoughtful reader.

It is interesting to conjecture why the AASA, which through this book has so strongly underlined the need for considering the educational process in building a school, doesn't "follow-through" with the idea in planning its annual School Architectural Competition. These awards, which are studied each year by thousands of educators about to build schools, rarely even mention the school program as a reflection of architectural design except in the most casual terms. It would seem that this book might prompt a whole-

sale re-evaluation of how the Atlantic City display of outstanding school designs can emphasize educational values instead of room and building layouts.

Beauty in school architecture

The following excerpts from Charles Colbert's strong chapter on beauty in school design are reprinted here not as a typical example of what the book contains (it actually probes the "practical" aspects of school-house planning more than this chapter would imply) but because it is representative of the authors' insistence that, in building a school, our primary equation on each decision must be "will it help educate children?"

■ "In their efforts to cope with the schoolhouse shortage in the face of continuous financial crises, school administrators, school boards, and architects have often forgotten one of the important elements in the design of new buildings—and one of the basic needs of the growing child.

"It is beauty.

"These hastily planned schoolhouses are often no more than containers for children—each accommodating so many pupils in so many square feet of space—each with its chalkboards placed conveniently so many inches from the floor—each properly lighted with the newest fluorescent fixtures. The material needs of the children have in most cases been adequately and thriftily met.

"But what about the emotional and spiritual needs of children?

"... School should be one of the most stimulating experiences in life, and intellectually it often is. But our schoolhouses, except in rare instances, are far from stimulating ...

"It is inconsistent to attempt to teach civic pride and

a full appreciation of the creative arts to children while denying them beautiful surroundings.

"In a good schoolhouse, architecture and education are inseparably bound together, and it is virtually impossible to attribute outstanding results exclusively to one or the other ...

"Beauty need not be expensive. The challenge to architects and to administrators is not so much the raising of money as its wisest use for the greatest possible educational benefit. Budget problems, severe and difficult as they are in many localities, are not nearly so acute as a lack of creative, constructive ideas. To believe that beauty is essential, to believe that it will leave lasting impressions on the pliable mind and personality of a growing child, to believe that it is worthwhile in community life and in a society in which men are motivated to action largely by the power and might of material forces, to stop feeling sheepish about even the most meager attempts to feed spiritual hunger, to stop trying to analyze and to justify with slide rules and calculating machines every item of expenditure intended to add a bit of beauty to a schoolhouse—these will be long steps toward releasing the creative powers of school-building architects.

"School-building planning should begin in the cosmos of dreams and then move to the point where it meets the demands of human progress. Educators and school

PLANNING AMERICA'S SCHOOL BUILDINGS, *American Association of School Administrators*, 1201 16th St., NW, Washington, D. C. \$6.



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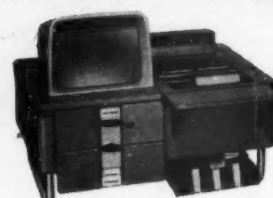
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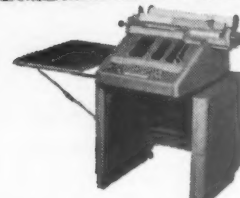
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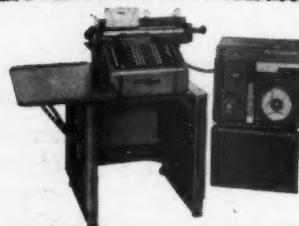
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board members may not be readily aware of the benefits to be derived from a visionary approach to the early stages of school-plant planning, but the school system that seeks to move beyond the commonplace in function, form, beauty, and design of its school buildings will not overlook or neglect the limitless resources of the human imagination . . .

"Because nineteenth-century architects chose superficial decorative elements that were frequently ill-suited to the building or its function, a reaction developed which stripped buildings of their decorative elements. But the bare, unadorned wall and the monotonous expanse of glass have become just as boring as the latter-day Greek cornice and the Roman arch. This development is perhaps an even greater problem than the nineteenth century's clichés because in its lack of design enrichment there is an *appearance* of economy, even though imaginative approaches to the decoration of walls and spaces need not be expensive . . .

"Who is to sponsor and to pay for the effort needed to realize these new ideas? Who will be first to apply them to a particular situation? Who is to champion a concept where there is no existing facility to illustrate its usefulness and to prove its worth? With the public's increasing awareness of school problems and its greater acceptance of truly creative solutions, we can hope for more and more individuals who will assume the responsibilities of leadership and bring forth imaginative environments for learnings." **End**



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FEBRUARY 1960

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An important visual aids primer -- clip and save it

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For many teachers the prime advantage of the overhead transparency projector is the fact that it is the only type of projection equipment that is designed to be operated in broad daylight. The ordinary classroom becomes a theater without turning out the lights or drawing the shades. Of course, you must have a projector that provides the maximum screen light required to retain detail and color. Projection Optics' Transpaque Jr., for instance, provides up to three times more light on the screen than any other projector of its type. Transpaque Jr.'s exclusive optical system has completely eliminated a serious overhead projection problem — the distracting rings that have always appeared on the screen.

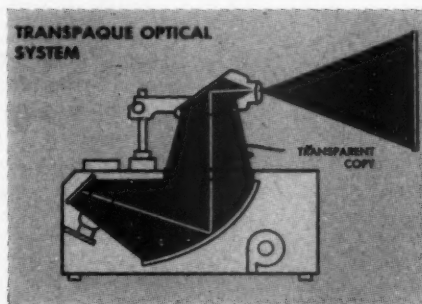
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a way to
convert "ideas"
to school use

How can a school district implement its plans for improvement? A group of school districts in Ohio have banded together in a unique organization that may bridge the gap between research and practice.

■ ■ ■ Let's say your board and administration have decided to install a completely modernized mathematics program in your schools. There's no shortage of literature on the subject. There's no scarcity of research findings. There's no lack of desire to act.

Your problem is: how do we get started?

A group of school districts in the Cleveland area has found a way. It's fresh, new and—above all—practical. Schools in your district could do it, too.

Last spring, the Educational Research Council of Greater Cleveland was set up as a bridge between

these valuable research findings and the waiting schools, eager but unable to apply them to their immediate needs. The council is a non-profit corporation sponsored by industry and the schools in the Cleveland area. It is and will be financed by foundations, organizations and individuals devoted to the interests of better education.

Its purpose is not simply to provide more—or mere—research; there is enough of that going on in the 603 educational associations listed by the U.S. Department of Health, Education and Welfare. The council's major concern is how to use research results and apply

them to the problems of elementary and secondary schools. Drawing on its staff of experts (it has three departments—administration, basic research and curriculum—each headed by an expert in the field) the council consolidates data gathered from all over the U.S. and refines it into a form that local school districts can use. In addition, it makes it possible for some of the millions of dollars contributed to education by commerce and industry—most of it at the college and university level—to be applied to elementary and secondary levels.

In effect, the council provides each participating school district

with its own captive group of consultants and its own foundation to make funds available for carrying on the group's investigations. Here is the way the school district gets help under this plan:

1. The school buys the services of the council for one year.

2. Together with other participating schools and the council, it determines what problem area the council will examine.

3. The council's skilled staff of full-time, top educators attacks the

problem, studying all research on the subject, and comes up with recommendations for the school.

4. At the end of the year the school can renew the service if it has proven helpful or it can drop out of the council entirely.

In order to get the full story of how this unique cooperative venture between the school and business communities works, SCHOOL MANAGEMENT conducted three exclusive interviews with representatives of the council, the schools and

industry in the Cleveland area. The intent was to discover whether or not a pattern existed there that other schools throughout the country might use for establishing similar programs. (See page 95 for a similar program now being organized on the East Coast.) In the following interview, Dr. George H. Baird, the council's executive director, describes how the service was organized, what it has accomplished in its six-month life and what its objectives are.



Q Dr. Baird, there are so many research groups active in the United States today—university, foundation and industrial. Why start a new one? What can you contribute that these groups are not already doing?

BAIRD: Most of the groups you mention are operating at the university level. They are doing research—some of it on elementary and secondary school subjects—that is very useful but not much of it is getting down to the schools. For one thing, unless a particular school is selected to be a guinea pig, these groups lack consultants to put the program into practice. Most districts can't afford a full-time consultant in mathematics, for example. More important, there is so much of this research going on. How is a district to know

which is really the best, the most promising? And beyond that, just because a program looks good to a college professor doesn't mean it is good when you try to use it in the schools. Turn to mathematics. It may be theoretically wonderful to teach calculus in high school. But if your teachers don't know how to present the subject, it's not a practical undertaking.

Our council, through the work of its permanent, full-time staff of top educators, sparked by the suggestions for needed areas of study by its participating school districts and the interest and financial support of the business community, is trying to bridge the gap between research at any level and practical application in the schools. In addition, we are doing independent research of our own where we feel that available data is not complete or thorough enough for our purposes.

Q. Don't tell me you are going to add to the flood of research data al-

ready pouring in on schoolmen from all directions?

BAIRD: Not at all. We can gain our objective by supplying the schoolmen in our area with facts, knowledge and a kind of service they haven't been able to obtain through local financing of education—a staff of full-time specialists working for them in our three departments, administration, basic research and, most important of all in our view, curriculum.

Q. Before we go any further, let's clarify this word research. Just what does it mean in relation to the council?

BAIRD: Research can be of several kinds. There can be pure, basic research, action research and, perhaps, no research activity at all in implementation studies we might tackle. There are many seemingly sound educational theories that have never been adequately tested, either because an organization has been lacking to do the necessary study or because individual schools haven't had the time or facilities to adapt them into workable programs. This is where the council enters the picture with its action research. We can do an engineering job for the schoolman by transforming some of these theories into implementable form so that he can try them out to see if they will work in his school.

Q. But haven't such projects been done before? The idea isn't new.

BAIRD: We have had other group efforts in educational research, but they have usually been sponsored by colleges and universities. These groups have generally been staffed by top-notch people, but they've

usually been full-time professors who had to continue writing and teaching and, consequently, couldn't devote full time to educational research.

They also have another disadvantage. Their projects are often chosen on the basis of how much is in the till: "We have \$500; how much research will it buy?" Well, this approach simply doesn't work. The thing to do is to ask, "Here is the problem—now how do we attack it? How much will it take to get what we think might be a solution?" Our council is geared to the second philosophy, not the first.

Q What about the private organizations that can be hired by schools to do research? Don't they side-step the objections you have raised?

BAIRD: Yes, such profit-inspired groups can do a commendable job. They generally hire top people on a full-time basis, but while they're interested in helping education, they're also running a business. This, in itself, is not objectionable. For one thing, such groups must be efficient—you can't make money running around in circles. But the profit motive is the very thing that destroys their effectiveness, for they must go in, make their study, come to a quick conclusion, and get out.

Q. How has the council been able to avoid these stumbling blocks?

BAIRD: First, we've found a way for commercial and industrial money to be directed to our non-profit corporation. Then, each interested school, acting the part of a customer, can buy the service of the council, on a yearly basis, for \$2,000. It may be that all the schools will not be interested in every project we have underway at any given time. They may use our findings, or not, as they see fit. If, after participating for a year, a school finds that it doesn't like the results of our efforts, it simply quits. And if all the schools quit, there is no council—that's ultimate control.

The key factor, of course, is that the participating superintendents buy the right to determine, with the council, the priority list of problems

Fairfield County follows suit

The Greater Cleveland idea need not be limited strictly to large urban areas, though a reasonably heavy concentration of population—and school districts—seems called for. Four small towns in Fairfield County, Conn., began formulating plans last month for a cooperative research project of their own. Pending approval of the participants—New Canaan, Darien, Greenwich and Westport—the Program for Research and Educational Development in the Community will have a central office of its own and a staff consisting of a management consultant, two professional educators, an industrial engineer, a director of public relations and an office manager.

Local school teachers and interested members of the communities will work with the permanent staff on an advisory basis and ultimate control will rest with the superintendents and board members of the participating schools. The group, which has estimated its needs at \$150,000 annually, is seeking the support of the Ford Foundation's Fund for the Advancement of Education for its first three years of operation. Thereafter, financing is to be done either through contributions from industry or an assessment of the participating schools. While the group's program has not yet been specifically detailed, areas of study will include administration, curriculum, teaching methods, guidance, office methods and, perhaps, school construction and salary schedules.

to be attacked by the council. They decide what needs to be done. Fortunately for us, the superintendents in Greater Cleveland are men who are willing to break with tradition if need be in order to improve the quality of our education in this area. This, combined with the strong community feeling that supports education here—we haven't had too much difficulty passing bond issues and, in general, our superintendents are not being sniped at—has made our job much easier.

Q. Have you experienced any difficulty in persuading schools to spend \$2,000 of public funds to buy your service?

BAIRD: No, we haven't. I spoke personally with each superintendent in this area, explaining exactly and precisely what we had in mind, and they responded enthusiastically. They all see in our service something they need and can use in their schools.

Q. Is the council's service limited or

can any school system request participation in your program?

BAIRD: We have opened our council to all the schools in this area—public, private and parochial. There are 21 school systems working with us at the present time and we anticipate that we will sign contracts with more very shortly. Ultimately, our work may affect the education of roughly 200,000 youngsters. But I think its potential is far greater than that, for if our approach proves helpful to education here, it can easily be duplicated elsewhere.

Q. Are you engaged in any action research projects at the present time?

BAIRD: Yes. Our first major project, currently underway, is in mathematics. The choice was dictated by the superintendents of our participating schools who declared overwhelmingly that it was their first concern. So we set about finding a way to implement a mathematics program which would incorporate the findings of study groups from

PERMANENT STAFF

Educational Research Council of Greater Cleveland

Executive director

Dr. George H. Baird, former director of research, special services and guidance, Shaker Heights Public Schools, Cleveland, Ohio.

Assistant to Dr. Baird

Mr. L. Romanos, linguist and former editor of the Bucharest newspaper "Democratul."

Director of curriculum

Dr. Kenneth Rollins, past director of guidance and curriculum, Jackson, Mich.

Assistant director

Dr. Jim Gray, former superintendent of schools, Lincoln, Mass.

Director of basic research

Dr. Myron Lieberman, author of "Education as a Profession."

Assistant director

Dr. Charles Turner, former assistant director of research, Richmond, Va.

Director of administration

Dr. R. A. Neuwien, former superintendent of Schools, Stamford, Conn.

Assistant director

Dr. Earl McGovern, former elementary principal, Parma School District, Cleveland, Ohio.

Librarian

Dr. Y. Sushkiw, linguist and former accountant.

all over the country—the Commission on Mathematics of the College Entrance Examination Board, for example, the School Mathematics Study Group at Yale, the Bowling Green State University Project, and others.

Q How far along are you in this work on mathematics curriculum?

BAIRD: The Greater Cleveland Mathematics Plan that grew out of our study of nationwide recommendations is being introduced into participating schools right now. We envision a five-year program. This first year there will be a new program in the first grade with enrichment in the second through sixth grades. Next year the second through fourth grades will be introduced to the new program with a transitional program and enrichment included in grades five through eight. And so on up through the grades until, in 1964, the first high school seniors who will have gone through the whole program, will be graduated.

We have been fortunate in obtaining the services of Dr. B. H. Gundlach, director of the Bowling Green State University project in improving the teaching of elementary mathematics, on a part-time basis, to assist us in our work on this project.

Teacher training programs have been designed to expedite this plan. Our school superintendents have worked with the council to set up schedules permitting their teachers to meet with Professor Gundlach for re-training sessions.

Q. What other kinds of studies do you think the council may become involved in?

BAIRD: The choice is almost unlimited and can range from entrance age problems, through salary studies, to board policy development. After our schools have been able to digest our mathematics recommendations—say, in a year or so—the school superintendents may decide they would like to have us look into improved foreign language or English or science curriculums. Once they decide, we'll be able to study

the findings available on a given subject area and develop a workable program for them.

Q. But the council, too, must operate on a budget. Won't you be limited, to an extent, on what you can tackle?

BAIRD: That's an interesting point, for though the council is barely six months old, it has experienced phenomenal growth. We anticipated a budget of \$70,000 for the first year, but this has been upped already since more schools have asked to participate than we had planned on. We thought we might go to \$150,000 next year but as things stand now, next year's budget will probably be in the neighborhood of a quarter of a million dollars.

Q. If you have 21 participating schools at \$2,000 each, that's only \$42,000. Where does the rest of the money come from?

BAIRD: It comes from a variety of sources. Our first year we received the very generous support of the Cleveland Foundation which granted us, for the first two years, \$100,000 on the basis of matching funds. The remainder is raised by contributions from industry.

Q How do representatives of industry fit into the workings of the council?

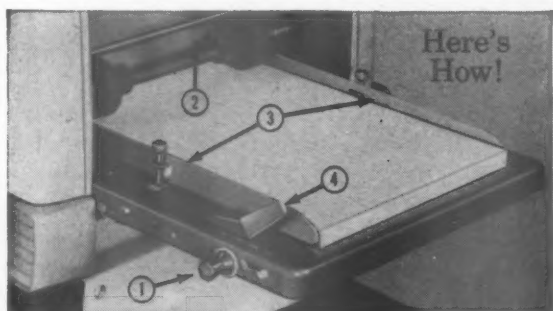
BAIRD: Our board of trustees (see box, page 102) consists of a group of people from industry who are interested in helping elementary and secondary education. They have committed themselves to financing the work of the Council and that is their function—nothing more.

Q. Do they control the purse strings?

BAIRD: No, they do not. I am committed, as executive director, not to spend more than we have raised. Actually, the council and its participating superintendents together determine what projects are possible. The superintendents select a project, then the council checks to see if it has money enough to do the suggested study properly. If it has, the suggestion is accepted and work



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on the project is begun. If not, the council may either have to refuse or to postpone action on the suggestion as given, or it may go to the board of trustees to request additional funds for the study.

The point to bear in mind is that the council supplies the schools with a needed service in a form which might be the pattern of the future for elementary and secondary educational research.

Q. How do you plan to handle the results of your research efforts? Will

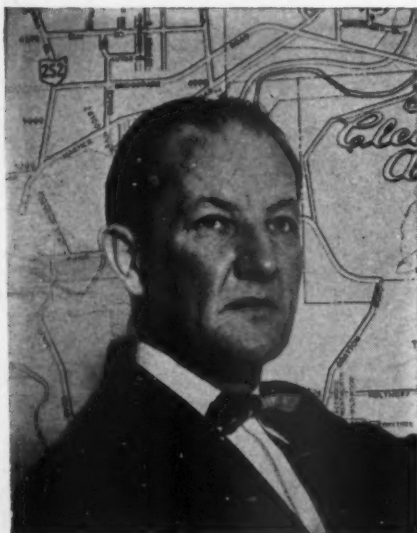
they be made available only to participating schools?

BAIRD: Well, though it hasn't been definitely decided, we think not. We feel that we'll have to figure out some way to share our findings with others. Education in a democracy is available to all citizens, so if we produce useful material in our studies we have a responsibility to share it as broadly as we can.

Q. What of efforts similar to yours that might develop in other parts of America? Would such groups be

linked directly to the Cleveland Council or would they function independently?

BAIRD: Independent groups in each area, I would think, will be the pattern. Ideally, we should have good communication of ideas among groups, thereby strengthening each other's efforts. After all, a good idea developed here in Cleveland is still a good idea in Wyoming, New Orleans or Yazoo City. In other words, an improvement in education can grow out of research no matter where it's done.



■ Each of the participating schools is working with the council because it feels strongly that the results of the research group's efforts will contribute greatly to the improvement of the teaching job it is doing. One such school system is the Berea School District in a suburb of Cleveland. Its superintendent, Dr. Paul C. Gallaher, has this to say about the council's work:

Q Your school district, Dr. Gallaher, has been part of the council from the beginning. Just what do you hope to gain from participation in this group?

GALLAHER: Actually, I think our Berea School District was the first

What the council means to the schools

in this area to go on record as willing to put up the necessary funds to participate. We're all looking forward to a great deal of benefit from the council's activities. With its outstanding staff and superior resources, it is able to carry on research projects far beyond the scope of a small school district such as ours. I think the council will be able to supply us with solutions to many problems that would otherwise be unavailable.

Q. What kinds of problems would you like to see the council give its attention to?

GALLAHER: Right now we hope to gain a great deal from the strenuous effort it has put into a revision of the mathematics program for schools in this area. Another area I would like to see investigated is the teaching of foreign languages. Where should we begin—in the elementary schools, junior highs, senior high schools? Should foreign language study be made available only to brighter students? And what language should it be—French, German, Spanish, Russian, Chinese, Indian? I don't know the answers. But I'd certainly be pleased to find someone who could get the answers for me.

Q. Since the selection of research

projects is based upon requests from all the participating schools, it is conceivable that your individual request might not be acted upon. What then?

GALLAHER: Well, I think that the foreign language-study question is prominent enough at the moment to receive the support of many of our participating school systems. But even if it weren't, the council will be able to take on special projects at times—particularly if the school system is able to finance it in part and can furnish the necessary additional personnel to handle it.

Q. What about the cost of participating in the council? Did you have much difficulty in justifying the expenditure to your board members?

GALLAHER: I had no trouble whatsoever. Actually, this project had been discussed in a general way here in Cleveland for a few years. When the idea really got going, I sent Dr. Baird's explanatory brochure to my board members together with a statement of my feelings about the council and what I thought it could accomplish for our schools. The members considered these arguments and decided that participation would be a good thing for our school district.

continued on page 100



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Industry's role in the council

■ What part do members of industry play in the workings of the Educational Research Council of Greater Cleveland? How do businessmen in the Cleveland area feel about the service the council supplies? Do they feel qualified to make recommendations and suggestions to the schools concerning the programs they should pursue? Or do they leave education strictly to the educators? These are some of the questions SCHOOL MANAGEMENT sought answers to in the following interview with Van H. Leichter, president of the American Steel & Wire Division, U. S. Steel Corp.

As president of the council's board of trustees, Mr. Leichter typifies the enlightened top-level businessmen in Cleveland who are concerned with the problems of public education—and are doing something about them in their locality. Here is what he has to say about industry's attitude toward the work of the council and how representatives of business function within its organization.

Q Mr. Leichter, you are president of the Council's board of trustees. What is the function of this board?

LEICHLITER: First, let me make this point clear—the trustees of the council do not profess to be educators. We leave the educating up to Dr. Baird and his staff and those of the participating schools. We merely perform a liaison function be-

tween educators and commerce and industry in this area. We are not attempting to dictate to the educational systems what or how they should teach.

Q. How many industry members are there in the council?

LEICHLITER: We have 14 commerce and industry members on our board, though many more than that support the council's work. Our interest, however, is limited to maintaining proper funds and guiding the council in its business activities.

Q. How do you obtain these funds for the council?

LEICHLITER: We approach those commercial institutions and industrial concerns that are as interested as we are in improving American education for contributions to further the council's work. In addition, we are soliciting the help of foundations where we think we have just cause to do so. We also spread the word about the council's activities at the regular luncheon meetings attended by prominent local businessmen. At a recent meeting, for example, about 40 business executives heard Ralph M. Besse, executive vice president of the Cleveland Electric Illuminating Co., Harry F. Burmester, president of the Union Commerce Bank, and Dr. Baird present the purpose, objectives and functions of the council. During the question and answer period which followed, the specific needs of the council were outlined.

Q. Does American Steel & Wire—

or any other business firm—participate actively in the work of the council?

LEICHLITER: Not as a company, though our long-range hope is that the employees we hire in the future will be of better calibre because of the improvement in education brought about by the council's research activities.

Q. But if the need for a specialist arose—a mathematician, perhaps, or a chemist—could he be borrowed from industry by the council to work with it in developing some project?

LEICHLITER: That may very possibly be a development in the future. Right now we are more interested in helping the school districts of Greater Cleveland by providing them with help aimed at improving elementary and secondary education.

Q. Are you ever faced with a "What's in it for me?" attitude on the part of the business people you approach?

LEICHLITER: That question has never come up. I think everyone is aware of the need for better education. In this post-Sputnik era we have come to realize that there is a great deal of improvement that can be made in America's schools.

Q. How do you think the council will develop once the idea has taken hold?

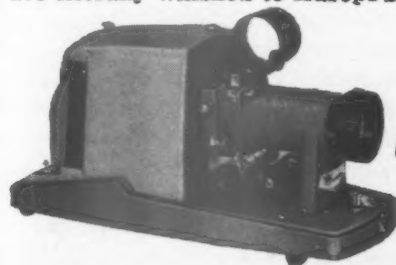
LEICHLITER: It is our hope that within five years the service of this council will be so important to schools that our board can bow out and the schools in Greater Cleveland can completely take over its function. We think, too, that the pattern we've established here can be applied to other large, metropolitan areas throughout the country. We feel we are pointing the way to the solution of a critical problem in

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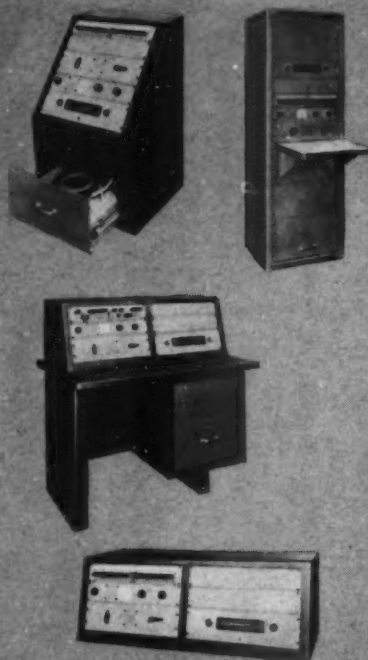
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American education—one that's particularly evident in large metropolitan centers where rapidly-expanding suburbs and their mushrooming school districts desperately need unified, cooperative research programs.

Q. Have you encountered any difficulty in getting the participation of individual school systems?

LEICHLITER: No, because we interested enough of the larger school districts in Greater Cleveland, which in turn helped us bring some of the smaller ones into the council. There was absolutely no pressure of any kind exerted on schools to get them to join the council. It's a strictly voluntary decision based on whether or not a school system feels we offer a service it can use. Of the 30 or so school districts in Cuyahoga County, only three were actively engaged in research projects before May 1 of this year. Now, in effect, all of them are having research done and, we think, to a value of 15 or 20 times over what the \$2,000 purchase price cost them.

Q. How do you keep participating

members of industry informed of the council's progress?

LEICHLITER: We have already published progress reports of the council's activities. Periodically we invite commerce and industry people to luncheon meetings where they are given verbal reports of what we have been doing and their suggestions for improvement of the council's operations are solicited. So far we've held two such meetings and, I might add, have received nothing but praise for our progress to date.

Q. What do you think of the council's achievements after six months of activity?

LEICHLITER: I am completely satisfied with the progress we have made. At the end of the summer we appeared before the Cleveland Foundation to report what we had done with the funds they had made available. Elwood Fisher, president of the foundation, expressed pleasure at our progress and thought we had developed to a point—in only five months—that we couldn't reasonably have been expected to reach in less than 18 months. **End**

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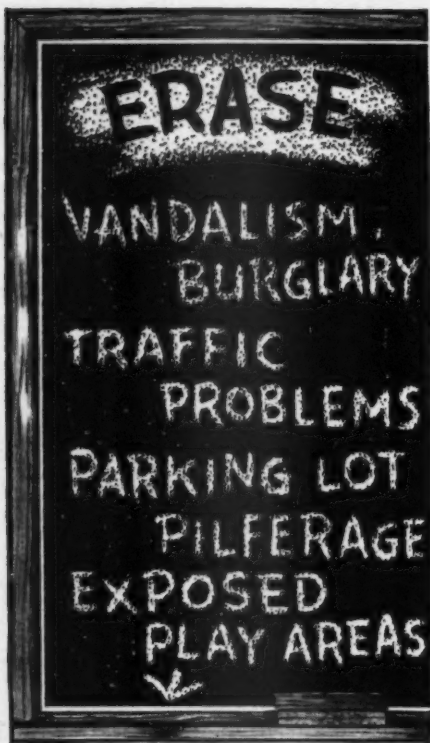
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■ We believe that a mechanical dishwasher is needed for *any* size school. We do not think it is possible for dishes, silver or trays to be properly washed and sanitized in a compartmented sink, considering the fact that most of the hand washed dishes require toweling as well.

We have made many studies of the time it takes to scrape, wash, rinse and dry dishes by hand as compared to machine, and we find

that hand washing is very costly.

During the last five years, manufacturers of dishwashers have developed mechanical machines to fit any number of dishes. There is actually a bewildering assortment and variety of dishwashers on the market in sizes and quality to fit all kitchens—from the small 20-inch to a large 28-foot machine. There is no economy to hand washing; it is an expense—and a danger.

QUESTION: Our district is now considering the purchase of refrigerators for a school kitchen. In many of your articles you mention reach-in refrigerators. Do you believe that we should not have walk-in refrigerators?

■ A walk-in refrigerator does not result in maximum use of space. The total usable space in a walk-in is 68%; the actual average space used is closer to 45%. This means that less than one-half of the cubic capacity of a walk-in refrigerator is really utilized.

Most of our kitchen designs show a main production area where all basic food is prepared. Refrigeration must be close at hand. We think that this is best done through the use of several reach-in refrigerators rather than by a remote walk-in.

In many cases, items, such as milk and lettuce, are kept in a walk-in merely because it is there. Milk should be kept in the cooler located where it will be served. Let-

tuce should not be kept in a walk-in at all. Upon receipt it should be removed from the crate, trimmed, cored and washed, placed in pans and put directly into a reach-in refrigerator for final use.

The refrigeration industry has made many improvements in reach-ins and there is a refrigerator to meet every need.

The foregoing does not mean that the walk-in is obsolete. In schools that are in remote areas, requiring large shipments—or schools that receive large amounts of government surplus commodities at a time—walk-ins are still important. But for the average school, not storing great amounts of items demanding refrigeration, reach-in units can accommodate all normal needs.



About the author. Richard Flambert is a partner in the firm of Flambert and Flambert, San Francisco, St. Louis, Omaha and Chicago, food service consultants and engineers specializing in schools and institutions. He is president of the International Society of Food Service Consultants.



Walt Disney Elementary School, Tullytown, Pennsylvania. Architect: John Carver, Philadelphia, Pennsylvania.

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Milk shake machine adds to lunch program

Here's an inexpensive way to increase the consumption of whole milk at your school

By GEORGIA BEILHARZ

School Lunch Supervisor, Greenburgh, N. Y.



■ ■ ■ A machine that dispenses chocolate milk shakes is being used in one school of this district to supplement the regular school lunch program. The machine, which was installed last year, costs the school no money. In fact, during the first six months of operation it made enough profit to buy a badly needed refrigerator for another school.

The cash factor is only one of the values of our milk shake machine. Most important is the fact that it provides a palatable source of milk.

Children who bring lunch from home and do not buy milk, and children who want something "extra" after lunch, make particularly good use of the facility. Nutritionally, the milk shake we are serving is the closest thing to whole milk that can be offered as a snack.

Introducing the milk shake machine into the school lunchroom hasn't even cost us out-of-pocket funds. The maker of the machine has worked out a method by which schools with tight budgets can pay for the machine out of its earnings.

The company, Emery Thompson Supply Co., installs the machine as soon as it is requested. The dairy that delivers milk shake mix to us puts a surcharge on our bill of 65¢ per gallon of concentrated mix which goes toward paying for the machine. This way we have been paying, out of the machine's earnings, about \$60 per month toward its purchase.

Four hundred of our 600 students, in grades five through nine, buy complete lunches every day. No student is permitted to leave school at noon. During the first 10 minutes of each of three lunch periods we serve

only the complete lunch. After that, children who want milk shakes may come to the counter.

Children who bring lunch from home, and who otherwise might drink no milk at noon, often buy milk shakes, thus getting a good portion of highly nutritious milk in a product they enjoy. Sales of milk shakes have not cut those of regular milk because many students purchase both. The milk shake we sell is mixed in the ratio of two parts whole milk to one part chocolate ice cream mix.

We sell shakes in two sizes: 10 ounces for 10¢ and 20 ounces for 20¢. Comparable sizes of milk shake are sold at a corner custard stand for 20¢ and 35¢ respectively, and they are not made with whole milk. We calculate our costs for the 20¢ shake this way:

Paper cup (giant size) \$0.030
Straw \$0.004

Mix and milk (including the surcharge) \$0.100
Total \$0.134

Other uses

In addition to serving as an excellent supplement to our school lunch program, the milk shake machine has proved a good snack bar for the school. It is used after lunch periods, especially in mid-afternoon, when students are being dismissed from school. It would even be possible for us to put the machine on a dolly, wheel it into the main hall, plug it into an outlet and sell milk shakes as students leave the building.

We have also used the machine during half-times of basketball games and other athletic events and it could be used as a concession at school dances. **End**

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- Independent-acting switch levers give finger-tip control with either hand.

- 4-blade knife-type switch contains more copper than any other floor machine switch we know of . . . therefore switch failure is a rare occurrence.

- Big gray stationary wheels make it easy to move from place to place, up and down stairs, over sills. Axle supported at 4 points for maximum strength.

- Bumpers circle both base and top.

- Special hand grips at front and rear facilitate carrying when necessary.

- Capacitor-start, induction-run motor. Capacitor provides maximum starting torque with less current. Reaches full operating speed almost instantly.

- All ball bearinged gear unit is designed and manufactured exclusively by MULTI-CLEAN for this purpose. 12 gear teeth in mesh at all times. Quiet, factory-sealed and lubricated.

All Multi-Clean 12, 14, 16, 19, and 22-inch Floor Machines can be converted into efficient Scrubbing Machines by adding a solution tank, controls, and channel feed brush.

■ ■ ■ Sandwich sales have been increased by as much as 50% in some schools in University City, Mo., during the past year. How were school authorities able to spark this student interest in luncheon sandwiches?

Muriel B. Hallowell, director of the district's cafeteria department, attributes the sales rise to the use of a transparent film wrap. She thinks the sandwiches served in the school cafeterias are now twice as attractive as they once were and considers the see-through characteristic of the plastic film to be the important sales-promoting factor. The air-tight, shape-conforming packages permit students to look before they buy. And the wrap's moistureproof barrier keeps the food fresh longer.

Last year, University City's senior high school and Brittany Junior High School began wrapping sandwiches by hand with Saran Wrap. The two schools, with a combined enrollment of 2,300 students, serve about 800 sandwiches a day.

To speed operations, cafeteria managers began using an effective new dispenser and perforated, cut-to-size, 10-inch by 10-inch plastic film sheets. The dispensers, of anodized aluminum with a flange to deliver the next sheet for ready taking, are heavy enough to hold a roll of film in place even when it is nearly depleted and can handle rolls ranging in width from six to 18 inches. Since the size of the wrap is predetermined by the perforations, each piece is easily torn off as required by pulling out on the roll.

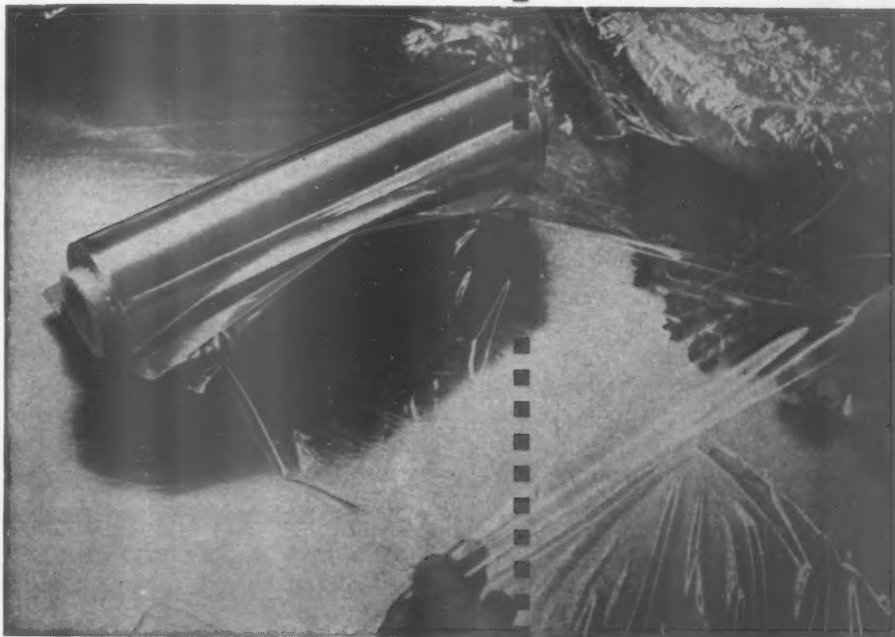
But, according to Miss Hallowell, the real advantage of the transparent wrap is its ability to keep sandwiches fresh. In the past, left-over sandwiches were thrown away.

"They dried up," she says, "and could not be served a second day. We were able to salvage meat fillings, but the bread, lettuce, butter, salad dressing, etc., were total losses." Now, left-over sandwiches in their transparent wraps can be served again, as eye-appealing as they were the day before.

(Circle number 775 for more information)

Boost sandwich sales with see-through wraps

Here's an inexpensive way to make sandwiches more appetizing and attractive in your school cafeteria.



Students are buying more sandwiches in University City, Mo.'s, senior high school (bottom photo) now that they're wrapped in see-through plastic. A new dispenser (top photo) speeds wrapping, cuts waste. See story at left.



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State School Lunch Supervisor
Madison, Wisconsin

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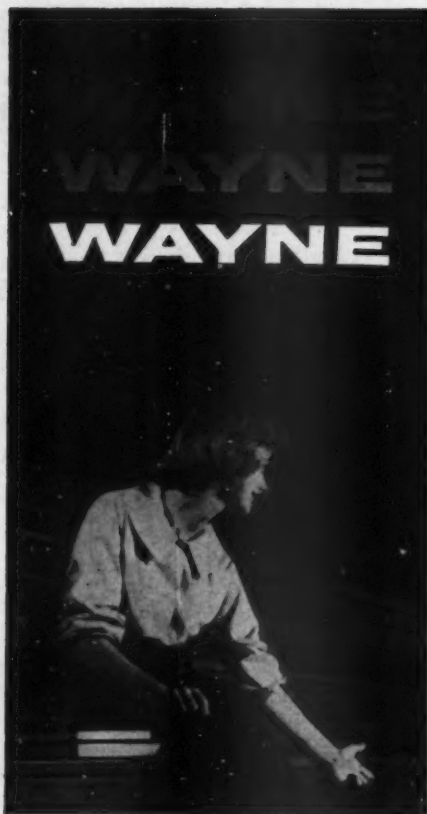
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(Circle number 740 for more information)

Ford Fund

continued from page 54

not primarily concerned with the dollar sign that is attached to a particular proposal. On the other hand, there are not many school systems in the country that couldn't scare up \$1,000 for a really good idea in which local people believed. But it might be \$15,000, and for many school systems this is real money. So let's talk more in the realm of \$10,000 or \$15,000 and let me give you a few facts that might help dissolve this myth.

During the period from January, 1957, through September 30, 1959, we made some 225 separate grants. If you break them down by size, there were 134 small grants, under \$25,000. Between \$26,000 and \$100,000, there were 52. Over \$100,000, there were only 36. So the grants under \$100,000 were five times as great as the grants over that figure. And, believe me, if you go in too heavily for small grants, you build yourself into a great bureaucracy that is processing an awful lot of paper. You are spending half your money just trying to make the grants.

Q. Then you don't encourage the small grant?

COOMBS: I think we should be wary of getting sentimental about the small grant. There are two occasions where I think a small grant, by a large foundation, is well warranted. One is when you're probing a really fresh area. A fellow comes along and wants a little bit of money to probe that area. If it looks like a probe that is promising, you ought to give him the money. The other occasion is where you've already spotted, on the basis of experience, a problem which needs to be attacked by maybe 25 different school systems. It won't take too much money for any one of them, but collectively it will take quite a little. You may end up with a series of related small programs. That is the other occasion. And I think that for a large foundation these are the two appropriate places for small grants.

Q. Then it would also be a myth that if you do ask for a small grant—\$5,000 or \$10,000—you almost automatically get the money because the Fund is just willing to give this piddling amount of money away?

COOMBS: That is very much a myth. Actually, a grant request for \$5,000 or \$10,000 may actually get as many man hours of attention here as a grant for \$500,000. This is one of the problems about small grants—they frequently require as much administrative effort by us as a big grant. We don't want to use our money up in administrative costs.

Incidentally, another myth is, that foundations don't support creative individuals, that they only support group projects and institutions. It is true that most of our grants flow administratively through institutions, but a large portion of the money actually goes to the support of individuals, in the form of fellowships, travel and research grants and the like.

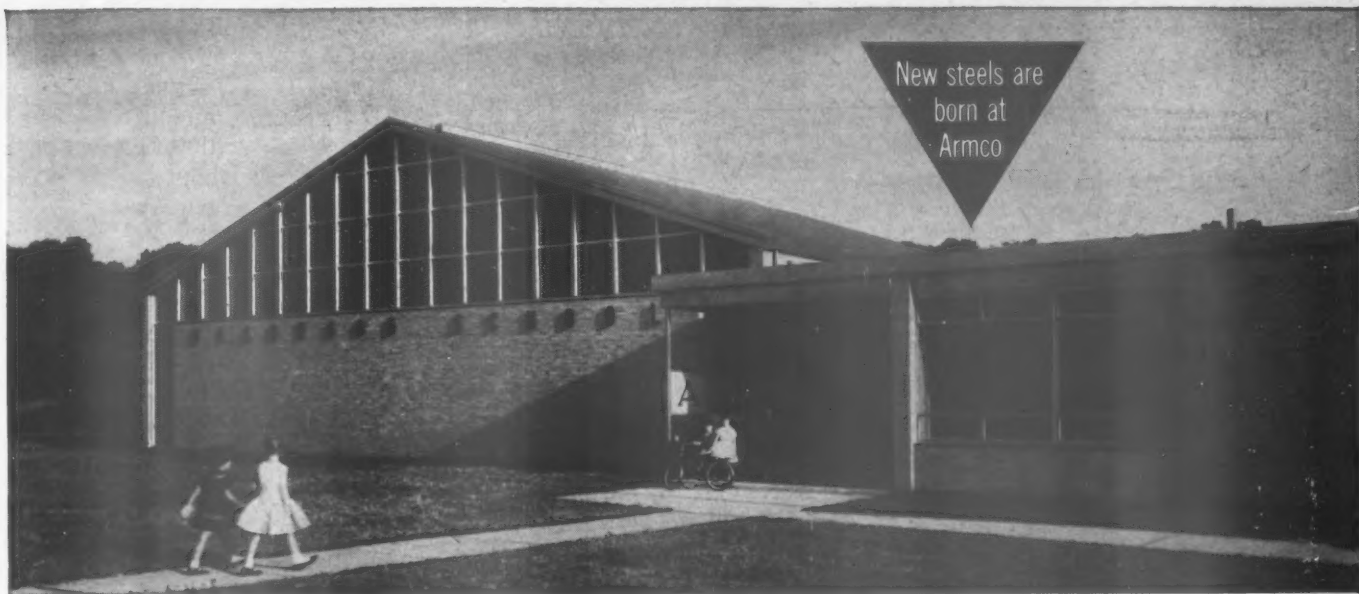
Q. Is it true that a well-known district has a better chance of getting a grant than one from an isolated area?

COOMBS: Absolutely not. We have made many grants to school districts and colleges that we had never heard of before they came to us. But the fact is that some school districts and colleges are much more on the creative frontier of education than others, and some of the best known are also the most conservative.

Q. In asking for a grant must a district or a school tie itself in with a school of education or a university? Do you demand evaluation by a school of education when you give a grant?

COOMBS: Not at all. If anything, it would tend to work in the other direction. We are delighted to see a school system—assuming it has good leadership, a good board and so on—strike out on its own and become a laboratory and seek whatever help it may want to have from outside, in the way of evaluation and consulting services. We would not tie it to a university. Frequently, they choose to tie themselves. On the other hand, if a graduate school of education comes to us with a big proposal that is intended to do something for the public schools—but we can see in the proposal no direct affiliation with public schools—we are inclined to turn it down.

Q. When you make a grant, who ad-



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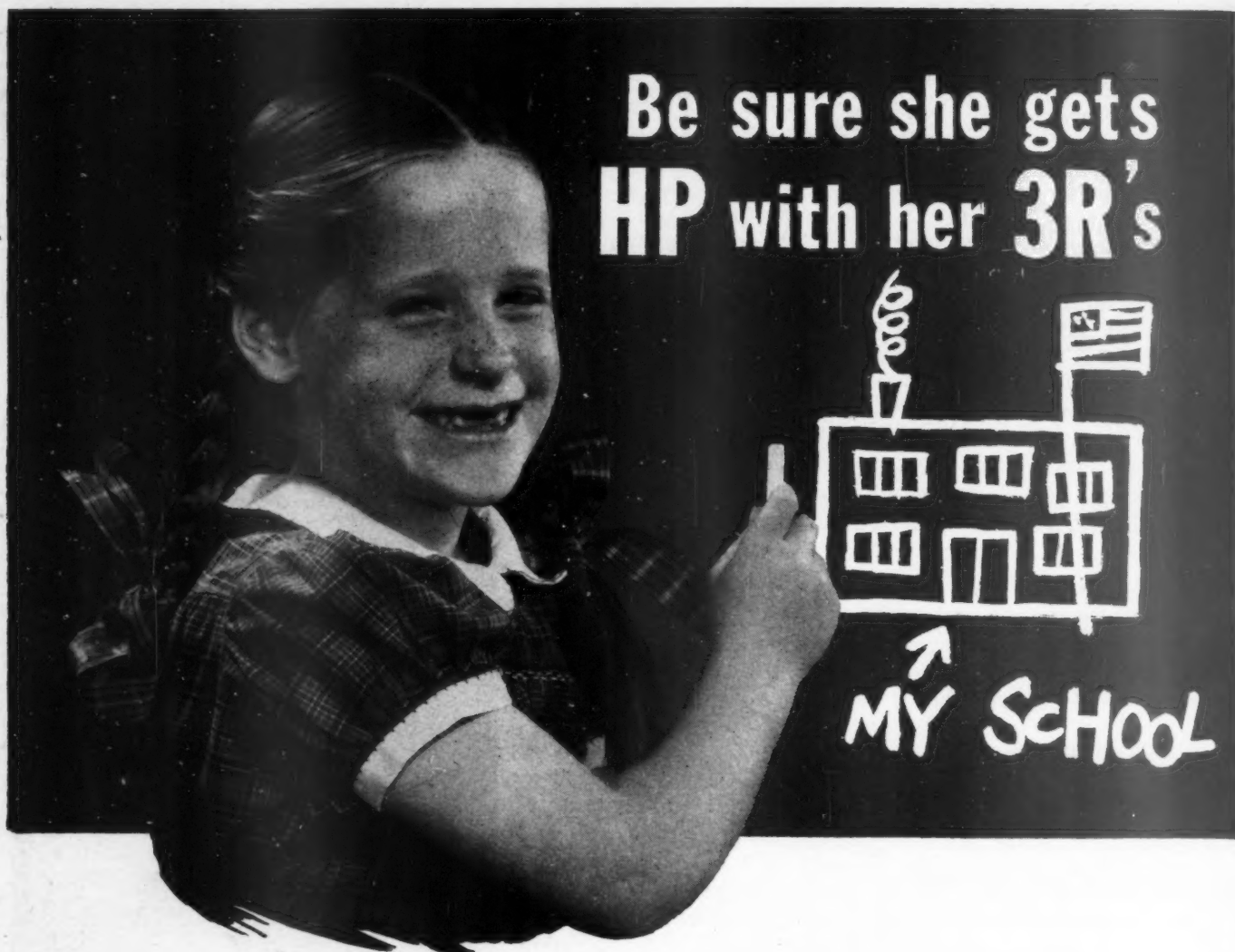
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ministers the money? Is it controlled by the Fund or the local district?

COOMBS: We send out a grant letter to the appropriate body that is legally equipped to receive these funds on a tax-exempt basis. Usually this is the local school board. We then state the terms of the grant—derived from the applicant's own proposal—and state the duration of the grant and request a financial report at the end of the fiscal period. The district is then on its own. It is bound only by the terms of its own request. It is expected, of course, to use the funds for the purpose for which they were granted.

Q. How close a check do you keep on the progress of the project?

COOMBS: We in no way enter into the administration of the project. The full responsibility is with the grant recipients. We ask them to provide progress reports. We would like to know their progress, for this is how we learn, and we want others to be informed.

Q. Is there any rigidity in your requirements so far as reports on progress?

COOMBS: There is no rigidity. We frequently make the request for a progress report in relatively loose terms. Then they come back and ask us whether it would be a good idea to have one at the end of the academic year, or after two years. This is a flexible arrangement.

Q. Is there an evaluation made during the course of a project?

COOMBS: Not by the Fund. There is no systematic evaluation made by us. We try, as our time permits, to keep in contact with projects. Often times—more often than not—we are asked by the people in the project to come in and take a look at it with them, and to trade our ideas. That way we have impressions as to how it is going.

Q Are there any strings on a grant? Are you going to be standing over their shoulders watching? Must a district permit you to come in, with outsiders, to scrutinize what it is doing?

COOMBS: I hope we are on good enough terms with all the people to

whom we make grants, that we are welcome to drop in. The fact is that our time does not permit us to drop in nearly as often as we are asked to. We certainly would not send a representative of ours—an agent—into a grant situation without seeking an invitation or the permission of the district. This is not a real problem.

Q. There is a feeling that, somehow, if a district takes this money, it is going to get a form of outside control. Is there any truth to this?

COOMBS: I doubt that this is a widespread fear. Much more often a school or college is anxious to get external recognition of the merit of its undertaking. We are dealing with a voluntary part of our society. After all, no one is obliged to ask the foundation for money, or to take it if they don't want to. They can send it back at any time. This happened, on one notable occasion, when a school board in a major city got all split up over an issue that we had nothing to do with. It concerned a question of whether UNESCO ma-

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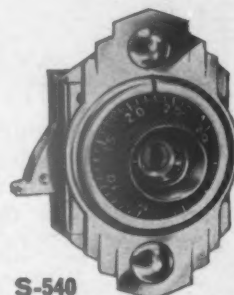
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terials could be used in the schools. Somehow, this got fouled up with the project that we had given a few hundred thousand dollars for, and the check was returned. This was all right with us. We gave the same money to some neighboring school systems to do the same thing, and it worked out very well. There is no problem of Fund control. We have no control. The only tacit string attached is that you do what you say you are going to do, that you use the money to run the project the way you said you would.

Q. Suppose that, in the middle of a project, the people doing it learn something that they think dictates that they head in a new direction. Suppose they need to take a 90 degree turn from what was originally proposed? Any objections?

COOMBS: If it is a 30 degree turn, they can go right ahead and do it. But if it is a sufficiently great departure from the thing they said they were going to do, they would come back to us—and this is frequently done—and tell us why they think it would be more fruitful to do it a dif-

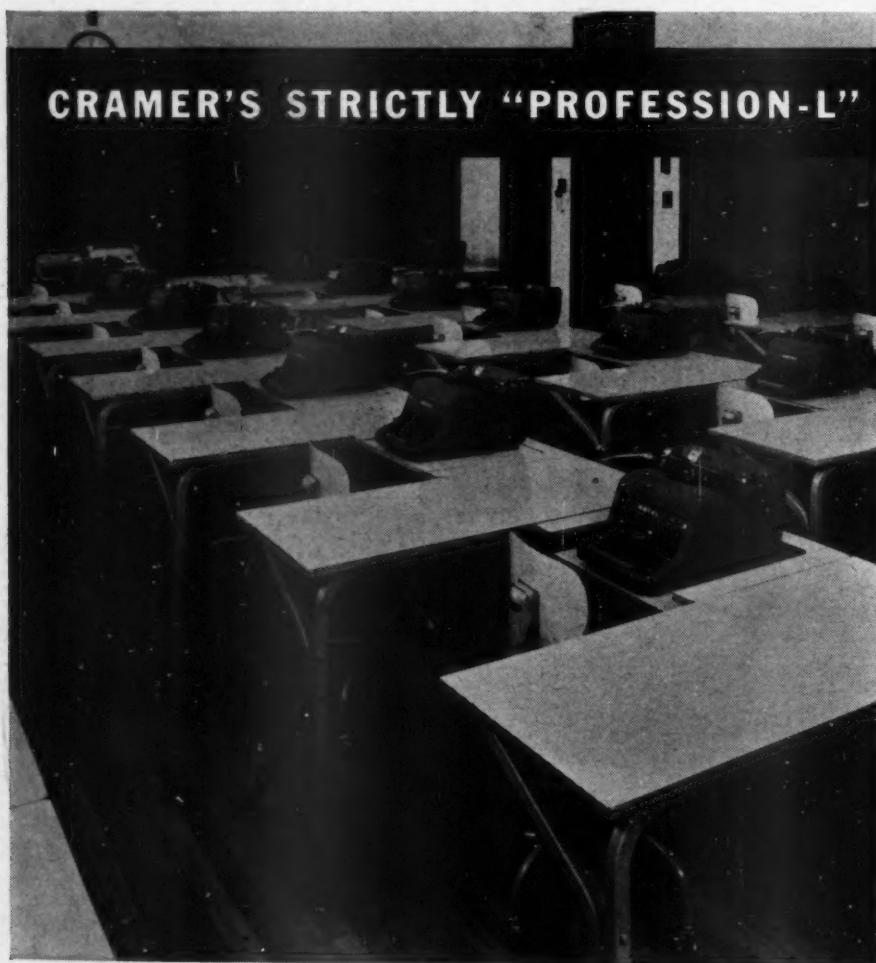
ferent way. Almost invariably we agree with them.

Q Is there an expense to the district in getting a grant? Let's say a district in Utah is interested in obtaining one. Perhaps you want to meet with the superintendent or the school board members. Coming from Utah to New York is a considerable undertaking. Does the district bear this expense?

COOMBS: Ordinarily, it is much more profitable for us to meet in Utah than New York. We would much prefer to meet with people on their home ground where we can sense the situation much better. We do not require anyone to come to New York at his own expense unless he chooses to do so. There is, however, an expense, a rather important one I would say, imposed on anybody seeking a foundation grant. It is a kind of human expense, of putting human energy into thinking through the idea and writing it up. This is the local investment in the idea. We can supply a certain amount of money to help a district do the work, but the people on the local level are the ones who really must contribute the most important ingredient—their energy and their ideas.

Q. Suppose someone came up with an idea that was not within your province? Would someone here be likely to say—"We can't handle this but you might try this or that foundation?"

COOMBS: We certainly encourage them if we think it is a good idea. We will tell them that we think it is a good idea and that we are sorry that it is not one of the things that fits into our program. If we can, we give them some guidance. But we can't pretend to be a kind of a clearing house for information on where to get money. We may get in touch with some other foundation, or the Office of Education, and suggest that they check in with this person. But we don't want to send a lot of traffic in the direction of another foundation, or the government, any more than we would like them to pass the buck to us. **End**



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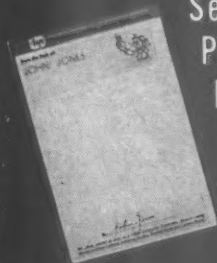
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Summer session

continued from page 57

man, political philosophy, mathematics, chemistry and biology. All of them were of an advanced nature and offered the possibility—but no guarantee—of advanced placement in college courses. Some of the classes originally scheduled did not materialize—the study of Greek for example—because of lack of interest and demand on the part of the students.

Students were allowed to enroll in one course only and attended classes daily from 9:00 a.m. to 12:30 p.m. The first hour-and-a-half was generally devoted to class discussion and recitation. After a 20-minute break, the second period, running until 12:30 p.m., was used by students for individual project activity and research. Because of the enthusiasm and interest of all concerned, instructors often stayed on with students in the afternoon to help them with their individual research projects.

Since more than half the students enrolled had expressed an interest in a rapid reading course, provision was made for them to attend voluntary extra afternoon sessions in rapid reading training. Students were assigned to them on the basis of their tested levels of reading achievement.

Most of the classes were held at Clayton High School. The two exceptions were advanced biology, held on the campus of Washington University, and advanced chemistry, held at St. Louis University.

All students attended a series of informative assemblies, scheduled for most Thursdays during the summer session. Guest speakers—including educators, sociologists, administrators and an author—discussed topics of interest to the students, for example, "How it feels to be a scientist."

Special activities

A series of special events—in addition to the assemblies mentioned—were held during the course of the summer program. Among them:

College day—Approximately 200 students attended conferences with representatives from 17 colleges and universities. Reactions were enthusiastic, particularly from students

who gained new insight into their college prospects.

Educator's day—Following a morning orientation meeting, 75 educators from 30 schools visited the classes in session. At the end of the class period, many held conferences with students from their own particular schools.

Parents' night—Parents visited their children's classrooms, met the teachers and were briefed on the work covered in class. Afterwards all 325 of them gathered to hear from administrators of MTSI about the progress of the program.

Observers—In addition to those mentioned above, about 100 other

issues of *The Mark Twain Pilot*, a student newspaper, were published during the course of the summer program.

Cost of the summer program

Total receipts for the first summer came to \$27,215; total expenses were \$25,276. Full tuition scholarships were awarded to 29 students at a cost of \$1,160; partial tuition scholarships, to 11 students, cost \$235; board and transportation for one student came to \$80; and transportation aid was given to two students at a cost of \$33—a total of \$1,508. Though the Clayton district furnished all textbooks, the

GRADE LEVEL OF MTSI STUDENTS

Distribution by high school grade completed, June 1959

MTSI Course	8th	9th	10th	11th	12th	Total
English			21	35	1	57
Russian		1	16	22		39
German			13	9		22
Political Philosophy	1	2	11	6	1	21
Mathematics				22		22
Chemistry				21	3	24
Biology		5	27	11	1	44
	1	8	88	126	6	229

persons visited MTSI classes. Many were members of an evaluation seminar conducted by the Graduate Institute of Education, Washington University. Members were graduate students in education who, during the regular school year, were teachers, counselors and principals in schools in the St. Louis area. They observed classes, observed student opinion, measured vocational interests and conducted standardized achievement tests.

Student activities—A variety of student activities held during the summer included a picnic, swimming parties, basketball demonstrations, attendance at a professional baseball game and the like. In addition, five

demand from students for permission to buy their own books was great. Total textbook sales amounted to \$573.

Conclusions

The outstanding fact about MTSI, as witnessed by most observers, was the interest and ability demonstrated by students in approaching really difficult material. They were seldom bored or disinterested. Discussions quite often carried over beyond classroom time. Close, informal contact was maintained with teachers who were considered guides and advisors rather than disciplinarians.

The motivation was admittedly

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strong, since students received no credit for participating in the program. They were simply interested in adding to their range of knowledge in their chosen subjects. (The two classes in Russian and the German class decided to continue their studies throughout the winter of 1959-60. These classes are being conducted under the sponsorship of Washington University and St. Louis University.) The opportunity to work at an advanced level was apparently incentive enough for those enrolled. They enjoyed the intellectual stimulation it provided and enthusiastically spent six weeks of their vacation period seeking it out. Of the 229 students enrolled, only two received unsatisfactory grades at the end of the summer session. Sixty-three were singled out for "honors," 100 were "superior" and the remaining 64 achieved "satisfactory" ratings.

A chance for you to explore

Significant to most outsiders was the flexibility of the teaching methods employed. A variety of procedures was used by individual teachers, and by the teachers as a group, in imparting information and guiding discussions and investigations.

The response of the students to the program was strongly affirmative. Most thought their courses "as interesting as any I've studied in high school," or "more interesting than most." One-third thought the work covered to be more difficult than that encountered in high school; almost one-half considered it to be among the "most difficult" high school work and a fourth termed it about average.

The students as a group approved of their teachers and were unanimously in favor of the one-course-per-morning schedule. The variety of classroom procedures encountered received highly favorable comment. Lectures, total class discussions, small group activity, individual projects, student reports and assemblies—all were considered to be worthwhile.

An interesting result of the summer program concerned the students' opinions of each other. Before the start of the session, a large minority were convinced that their fellow students would be "intellectual snobs," "brains" or other anti-

social types. They were pleasantly surprised at the conclusion of their studies to find each other bright, pleasant, good-humored and interesting.

Projection and reality

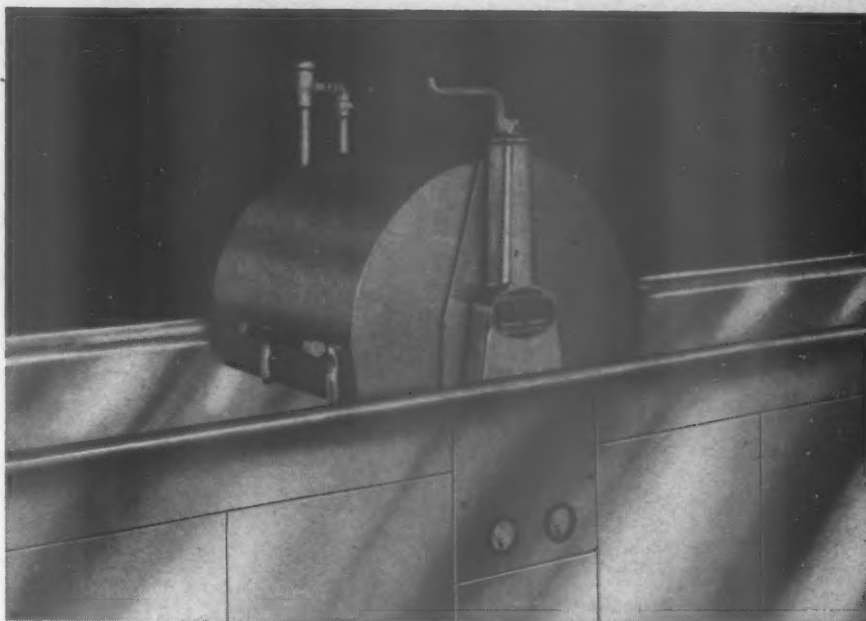
Coincidentally, the program pursued at MTSI tied in with many of the secondary school projections of J. Lloyd Trump in his recent publication, "Images of the Future." Trump, working under a grant from the National Association of Secondary School Principals, recommended that instruction in our high schools be divided into large-group, small-group and individual study sections. In addition, he suggests that master teachers be assisted by properly trained specialists to relieve them of the burden of trivial detail so that they can devote more time to real teaching tasks. This is exactly what the pattern at MTSI proved to be. Its two-period classes were devoted to general instruction and individual projects and intern-teachers were present to assist master teachers in some courses.

Perhaps most important was the close relationship established between students and teachers during the summer session. This is a primary consideration in Trump's view. He calls for the secondary school to "Make the teacher more a consultant and less a taskmaster," something that was achieved with spectacular success at MTSI.

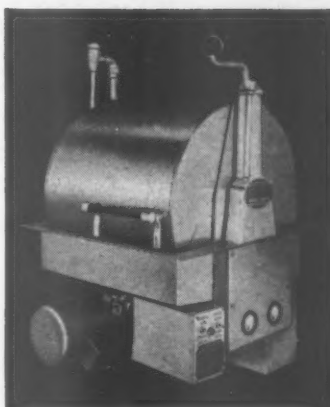
A final similarity between Trump's projection and the actual situation in the St. Louis summer experiment lay in the closer rapport achieved between it and the colleges in the area. "Images of the Future" envisions a situation in which "students will be able to visit and actually participate in university educational laboratory experiments." This, too, was accomplished by holding some summer session classes at two universities in the St. Louis area.

In this respect one of the important supplementary purposes of the institute was achieved. It was able to serve successfully as a laboratory-demonstration center in secondary education for student-teachers, both through the visiting privileges granted to outside observers and the system of employing intern-teachers from graduate schools of education.

End



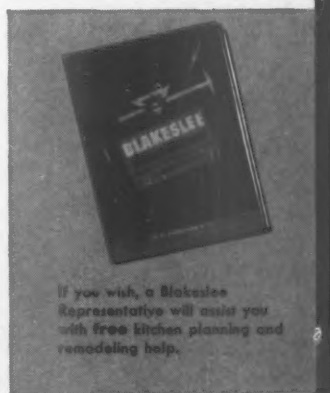
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Maintenance

continued from page 64

trash and refilling of dispensers when necessary. Two sets of standards were necessary here: multi-unit lavatories—half a minute per fixture; single-unit lavatories—one minute per fixture.

Cleaning drinking fountains: including the adjacent tile wainscoting. Standard set: six minutes for each corridor fountain.

Faculty dining room: a policing activity, this entailed rearranging chairs and damp wiping table tops after morning use by the faculty—a task that should be considered by all schools. Standard: 15 minutes.

Paper towel distribution: performed for each classroom and kindergarten, the distribution and travel time between rooms required one minute per classroom serviced.

Cafeteria table tops: washing and rinsing table tops after lunch (pupils had already cleared them of paper, trash and dishware) could be performed at the rate of one table per 1.2 minutes.

Cleaning interior glass: two hours per thousand square feet is a recognized standard. By allocating 50 minutes per day (more than four hours per week) to this task, 2,000 square feet weekly could be kept in satisfactory condition.

Incinerator, vestibules, outside areas: removal and disposal of ashes required 30 minutes; vestibule cleaning with allotted 15-20 minutes; policing outside areas could be done in two hours. A total of 180 minutes per day, seven days a month, was allocated for these operations. Conversion of the general purpose room (*see page 121*), which took the same amount of time, was required on the other 15 school days of the average month.

Corridor cleaning: the standard here was the same as after school dust mopping of corridors: eight minutes per 1,000 square feet.

Unscheduled custodial work

Custodial services included non-cleaning operations which were not scheduled as to time and frequency and those which were scheduled for daily or near daily performance. Unscheduled operations included:

1. Administrative and clerical work connected with directing the custodial and cleaning program;

Conversion of general purpose room East Broadway Elementary School

The normal cafeteria setup consists of five rows of nine tables each with three chairs on each side of each table, or 270 chairs. Conversion to full-scale auditorium setup entails folding and storing of 45 tables, sweeping the floor, arranging 270 chairs, unfolding and arranging 130 additional chairs and arranging speakers' tables, chairs, podium and microphones on the stage. Time requirements for these operations are as follows:

Folding and storing 45 tables @ 2 minutes per table	90 min.
Sweeping floor, 4,116 square feet @ 10 minutes per 1,000 square feet	43 min.
Arranging 270 chairs estimated	20 min.
Unfolding and arranging 130 additional chairs estimated	20 min.
Arrangement of stage estimated	15 min.

188 min.

(Approx. three man hours)

- Supervision and inspection;
- Operation and checking of heating plant;
- Minor repairs—blinds, door checks, furniture, plumbing, etc.;
- Ordering, receiving and distributing supplies; and
- Miscellaneous work requests from teachers and principals.

Operations one, two and five were handled exclusively by the head custodian as was operation three on the day shift. Operations four and six were generally performed by the head custodian too, sometimes with the assistance of the day shift custodian. Since the head custodian was scheduled for a maximum of one-and-one-half hours daily in assistance in other operations, the remaining time was adequate for the performance of unscheduled tasks.

Scheduled custodial work

The operations that could be scheduled for specific periods during the day included conversion and reconversion of the general purpose room to meet assembly schedules, evening activities and cafeteria requirements; the storage and distri-

bution of milk for both morning and afternoon sessions of the first, second and third grades; and assistance in the cafeteria during lunch period.

General purpose room conversion: This work, performed on the day shift, was the most time-consuming custodial task resulting from school "activities." (Evening use of classrooms ended by 11 p.m., so clean-up could be handled after that hour by the after school shift; no setups or conversions were required for evening use of the gym; and the evening use of the arts and crafts room required some rearranging of furniture, usually accomplished in 15 minutes by the day shift.)

The normal cafeteria setup consists of five rows containing nine tables laid end-to-end, with a total of 270 chairs, three on each side of each table. Converting this arrangement to a full auditorium setup required approximately three man hours (see box, above). Analysis of time spent for conversions of all kinds indicated that this standard was adequate for any situation. The general purpose room in the East Broadway School contains 45 units consisting of one table and six accompanying chairs. The standard of 180 minutes divided by 45 units results in a unit standard of four minutes. This unit standard could then



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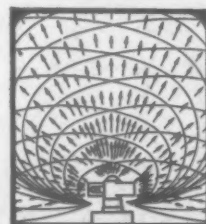
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121



be applied to the conversion and reconversion of general purpose rooms of different sizes in other schools in the system.

Storage and distribution of milk:

Two rounds of the first, second and third grades were required to perform the following operations: 1) deliver milk cartons as indicated on order sheet; 2) pick up empty cartons; 3) empty waste baskets; and 4) incinerate trash and empty milk cartons. Careful study of the operations involved indicated that one-and-one-half hours were required each morning and each afternoon in the performance of these duties.

Assistance during lunch: The

presence of an attendant in the cafeteria during the lunch period was recommended to mop up spillage, police disposal of trash into cans and compact trash in cans as required. Some preliminary conversion work could also be performed while the cafeteria was still being used by pupils for dining. Time allocated for attendant duties in the cafeteria during lunch period: 90 minutes.

Results of study

All of the operations and standards developed by Burner and Riley in their survey of the East Broadway School were deemed applicable to the other District Five Schools

in Levittown. The units for the operations listed were determined for each of the schools. When the new standards were applied, the resulting totals were used for allocating personnel.

Economies similar to those noted for the representative school resulted throughout the system. In fact, for the entire district, the study indicated that all of the maintenance and custodial operations required in Levittown's schools could be conducted with a smaller number of employees. The suggested reduction in custodial staff amounted to 16 people, from a total of 113.5 to 97.5 workers (*see below*). **End**

COMPARISON OF LABOR ALLOCATIONS

District Five Schools, Levittown, N. Y.

School	Grades	No. Teachers	58-59 Enroll.	No. on Double Session	Sq. Ft. in Bldg.	Present No. of Cust. Staff	Recom. No. of Cust. Staff	Reduction or Increase
Abbey Lane	K-6	76	1617	976	70,994	9.0	7.0	—2.0
Gardiners	1-6	71	1605	895	73,531	9.5	7.0	—2.5
Northside	4-6	40	795	—	61,378	7.0	6.0	—1.0
Laurel Lane	K-3	23	597	597	19,989	2.5	2.5	
Pintail Lane	K-3	21	639	639	16,100	2.5	2.5	
Summit Lane	K-6	55	1363	815	60,694	7.0	6.5	— .5
East Broadway	K-6	70	1720	1126	82,285	9.0	7.0	—2.0
Seaman Neck	K-6	51	1307	882	61,413	6.0	5.5	— .5
Lee Road	K-6	31	662	399	39,000	5.0	4.5	— .5
Cherrywood	K-6	19	592	497	25,825	2.5	3.0	+ .5
Wisdom Lane	K-9	91	1908	858	128,994	12.5	9.5	—3.0
Salt H.S.	7-9	75	1321	—	134,000	13.0	11.0	—2.0
Lev. Mem. H.S.	10-12	80	1344	—	115,428	13.0	11.5	—1.5
Div. Ave. H.S.	7-11	91	1453	—	162,324	15.0	14.0	—1.0
						113.5	97.5	—16.0

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continued from page 22

mended to strengthen the instruction of science under Title III of the National Defense Education Act is now available from Central Scientific Co. The booklet offers teachers a ready means of selecting, by subject matter, the apparatus and materials needed to initiate or supplement elementary science courses which cover basic, standard and advanced requirements. Broken down into four sections, the booklet includes instruction items for

1) living things such as plants and animals; 2) earth and universe; 3) health; and 4) matter, energy and machines. Health subjects include nutrition, teeth and skin, eyes, ears, digestive system and respiration. The many descriptions also explain how the apparatus is used.

For a free copy of this booklet, circle number 886 on the Reader Service Card.

Information on heat and power units. Two new bulletins dealing with heat and power units have been issued by

Titusville Iron Works. One deals with the company's new three-pass unit with all wet back construction which can be built in sizes up to 900 hp. The other describes its two-pass unit which includes complete wet back construction, safe updraft gas passages, ease of maintenance, large furnace volume and high thermal efficiency.

For free copies of these bulletins, circle number 831 on the Reader Service Card.

Specifying submersible pumps. Thirty leading, fully-illustrated and indexed uses of submersible pumps highlight the 1960 Kenco Pump Catalog-Data File now being distributed by Kenco Pump Division. Designed to assist contractors, builders, architects, consulting engineers and maintenance supervisors, the 10-page, two-color catalog lists the physical dimensions, pumping capacities, electrical data and specific features of each pump, together with engineer's specification forms as handy guides for specifying them.

For a free copy of this catalog, circle number 836 on the Reader Service Card.

Data on casters. New light-duty, stem-type casters for use on trucks and carts are described and illustrated in a two-color catalog sheet issued by Faultless Caster Corp. The casters have load capacities of from 60 to 280 pounds each, are available in 3½-inch, 4-inch and five-inch diameters in a choice of cushion or hard treads, including semi-steel, rubber-tired, "Ruberex," "Rock-ite" and semi-pneumatic. Stems come in both round and octagonal shapes and the finish is rust-resistant cadmium. All have double ball-bearing swivel assemblies of hardened steel balls and precision-formed, hardened raceways for ease of movement.

For a free copy of this catalog sheet, circle number 837 on the Reader Service Card.

Teaching of reading. Leading authorities in the field of education and visual aids explain their concept of the approach to teaching reading in a new brochure available from C-B Educational Films. These same concepts are the basis of the newly-expanded and integrated film series called "Phrase Reading," which the brochure describes fully. The publication also introduces two unique film series, "Keys to Reading" and "Pathways to Reading," the latter designed for elementary levels.

For a free copy of this brochure, circle number 839 on the Reader Service Card.

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PRESS RELEASES

News from the business firms serving your schools

Glare-free lighting

A fresh concept in controlled light refraction, the Keystone Electric Mfg. Co.'s Achromatic, improves light level and reduces glare at higher efficiency. Basic to the unit's function is its Achro-Lens, a crystal-clear, one piece, wrap-around shield of extruded, color-stabilized polystyrene or acrylic plastic. Scientifically designed with uniform inverted prismatic lens pattern, it provides absolute uniformity of brightness, banishes harsh contrasts and eliminates lamp image. Available in two- and three-lamp models in four- or eight-foot lengths, the units are wide but shallow and can be surface or pendant mounted. Totally enclosed and dust free, the lighting units can be easily cleaned and maintained.

For more information, circle number 873 on the Reader Service Card.

Portable milk unit

Three independent elevators for dispensing milk cartons or glass containers at serving height are featured in the portable milk unit now available from Lincoln Mfg. Co. The stainless steel, refrigerated, self-contained dispenser requires no drain connection, stores up to 985 half-pints of milk and can be wheeled to any feeding location.

For more information, circle number 867 on the Reader Service Card.

Coin bag seal

A patented, tamperproof seal designed to prevent pilferage from coin bags has been introduced by Security Seal Co. It consists of an extra-large lead seal and a 33-tooth patented metal grip, through both of which is threaded a length of 185-lb. test, unbreakable cord. To seal the coin bag, the cord loop is placed over the neck of the bag and drawn tightly. This forces the teeth of the metal grip to dig into—but not rip—the bag fabric. A small hand-sealing press compresses the lead seal which permanently prevents the cord from

loosening. The bag can now be opened only by cutting the cord or tampering with the seal, so pilferage can immediately be detected.

For more information, circle number 869 on the Reader Service Card.

Portable Bunsen burner

Ideal for laboratories and classrooms in schools not equipped with gas, a portable Bunsen burner, operating on propane, is offered by Turner Corp. It requires no hose connections



or gas outlets, can be easily moved from room to room and can be taken to field labs when necessary. The propane gas contained in a lightweight steel tank, with safety valve, provides up to 15 hours of burning time, depending upon the size of the flame used. The tank is disposable and can easily be replaced at low cost in a matter of seconds. The unit comes equipped with a burner head best suited for general laboratory use.

For more information, circle number 866 on the Reader Service Card.

Duplex tape recorder

Any student in a language lab can now sit in a booth with his own individual recorder and be the only one working with the master tape in his machine. Califone Corp.'s newly introduced Duplex Tape Recorder makes it possible for him to listen to this master through his earphones, respond into his microphone and hear himself instantly. Both his and the

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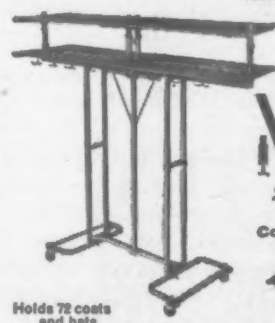
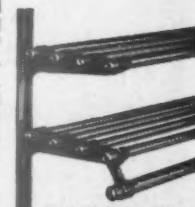
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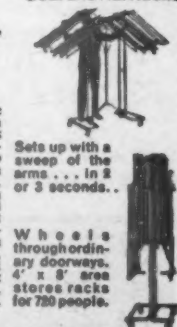


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For more information, circle number 863 on the Reader Service Card.



Art appreciation kit

A unique set of materials introducing youngsters from seven to 14 to the world's great paintings has just been

introduced by Ottenheimer: Publishers. The kit contains a packet of full color reproductions of eight famous paintings that trace various milestones in the history of painting. On an accompanying long-play record, Ann Loring explains each painting in turn, giving information that will whet a child's appetite for further ventures into art appreciation. An illustrated book included in the set is by Dora Jane Janson, co-author of "The Story of Painting for Children" and "A Picture History of Painting." It traces the history of art and instructs and entertains the young reader. Two

other sets, assembled along similar introductory lines, are available from the same publisher. They are "An Introduction to Ballet" and "Let's Put on a Play."

For more information, circle number 845 on the Reader Service Card.



Goblet protector

A Glassaver tray, designed specifically for goblets, has been introduced by Raburn Products to eliminate expensive breakage problems in cafeterias. Made of unbreakable



plastic, the tray holds 15 goblets and keeps them from being nicked and scratched. They are light-weight and stack safely when filled, requiring substantially less storage space than other types. Provision is made, too, for free air circulation, to do away with steaming or cloudiness.

For more information, circle number 846 on the Reader Service Card.



Office floor protector

A low-cost, ridged plastic strip that attaches easily to the bottom of any file cabinet, has been introduced by Ralph E. Baker Co. The strip, called Florgard, is designed to protect office floors against rust and stains left under cabinets because of constant floor washing and waxing. In addition, it reduces the chances of unsightly depressions often left by heavy cabinets.

For more information, circle number 857 on the Reader Service Card.



Disinfectant test kit

A testing kit, designed for the control of the quaternary ammonium compounds widely used for sanitation and disinfection, has been introduced by LaMotte Chemical Products Co. The wide-range outfit, used for determining concentrations of such compounds, is light in weight

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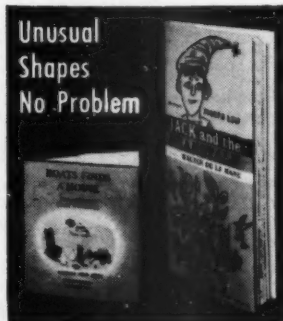
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For more information, circle number 858 on the Reader Service Card.



Relief map

A 38- by 45-inch raised relief, plastic map of the United States and Mexico—priced the same as conventional framed flat maps—is available from John H. Andrews Co. Useful and attractive even when viewed from a distance, the map's bold lettering is printed over a vivid seven-color background providing detailed elevation information. Its elevated mountains, uplifted shorelines and indented rivers permit topographic features to be felt as well as seen. Hundreds of callouts locate cities, lakes, rivers, highways, railroads, shipping lanes and national parks.

For more information, circle number 864 on the Reader Service Card.



Gas-fired incinerator

Safe, convenient disposal of rubbish, sweepings, milk cartons, boxes, rags—all wet or dry school combustibles—is provided by a new gas-fired incinerator manufactured by Syrrall Mfg. Co. The unit permits maintenance of clean, orderly, sanitary surroundings at a reduction of as much as 50% in the cost of waste disposal,

according to the company. Suitable for indoor or outdoor installation, it features up-draft design and provides AGA approved controls to shut down the gas line instantly and automatically in the event of fuel failure. The burner assembly is of the pressure blast type and may be operated by an automatic timer for pre-setting the burning time from five minutes to two hours. A unique front and top opening feature permits direct emptying of barrels and boxes into the combustion chamber with no need for hand lading or breaking up. Installation is made using standard chimney ma-

terials with L-P bottled or natural gas. Capacities range from one to 25 bushels.

For more information, circle number 874 on the Reader Service Card.



Dining table line

A correlated group of dining room tables and chairs has been announced by Howell Co. The table tops, of laminated plastic, are made up in colorful patterns and the new style pedestal bases and legs harmonize with the design of the chairs. A wide



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assortment of top styles, pedestal designs, leg shapes and a full range of table sizes, from 18 inches by 24 inches to 48 inches by 96 inches, is available.

For more information, circle number 855 on the Reader Service Card.

■ ■ ■

Heat control switch

Smooth, gradual control of electric heat unit ventilators is provided by a new pressure-electric switch now available from Powers Regulator Co.

Called the MS (Multi-Step) Switch, it uses a variable pneumatic signal to actuate as many as 10 electric heating elements in sequence for the temperature level required. The pneumatic thermostat passes a gradually increasing or decreasing air signal to the switch. As the temperature drops and heat is needed, the thermostat passes more air to the switch. The switch then positions one of its 10 internal electric switches which, in turn, energizes the corresponding resistance element in the unit ventilator. As the temperature continues to drop, more air pressure is passed, thus actuating

the remaining electric switches in sequence. When the temperature rises, the electric switches return to their normal "off" position in reverse order.

For more information, circle number 901 on the Reader Service Card.

■ ■ ■

Utility car

A gasoline-driven utility car that travels anywhere, indoors or out, is now being produced by Terra-Car Corp. The vehicle travels over ground too soft to walk on and can even be driven over soft, wet grass with no damage to the turf. Its large "foot-print" (tire size is 16 by 15 by 6) spreads its weight over such a large area that even plant life springs back unharmed after it passes over it. The Terra-Car can travel over railroad



tracks, through sand or gravel and up and down runways and hills, drawn by a seven hp gasoline engine. Featuring rear wheel steering, three forward speeds, a reverse gear and an automatic clutch, the car travels at from two to nine miles per hour.

For more information, circle number 875 on the Reader Service Card.

■ ■ ■

Tile cleaner

A lanolin-containing porcelain, enamel and tile cleaner has been developed by the Davies-Young Soap Co. Called Buckeye DYD, the pink cream cleaner is designed to clean bath fixtures, refrigerating equipment and stainless steel, chrome and brass fixtures too. The lanolin content makes the product safe and gentle to hands and it is antiseptic, as well, leaving surfaces clean and germ-free. Each case of the cleaner contains 24 re-usable polyethylene containers.

For more information, circle number 849 on the Reader Service Card.

■ ■ ■

Tennis table top material

A recently perfected flake-board material that resists warping and shrinking has been adopted by Sico Mfg. Co. for the tops of its portable



DIM OUT or Black Out DRAPERIES

... offer your best choice of effective light control



Photo above illustrates Luxout's Exclusive MASSAU DIM OUT Draperies

Classroom audio visual light control requirements differ according to circumstances. Many prefer total BLACK OUT light control; however, since Luxout led the way with DIM OUT light control draperies, many architects and engineers have indicated a preference for better student rapport through the use of Luxout DIM OUT draperies. Luxout offers both types to fulfill all light control classroom TV or audio visual projection needs.

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(Circle number 747 for more information)

tennis tables. Developed in Germany, the laminated material is produced by a process that leaves no hills, valleys or dead spots in the uniformly hard surface. A plastic molding protects the edges against dents. Uniform flakes of natural wood, used in the process, are cut and positioned so they retain the longitudinal strength of the wood fibers. Coated with a special resin, the wood pieces are patterned in a mat and fused into a solid piece of great strength. Heat and humidity tests have failed to cause delamination or cracks, according to the manufacturer.

For more information, circle number 848 on the Reader Service Card.

■ ■ ■

Metal inventory tags

Serialized Metal-Cals of anodized foil are manufactured by C & H Supply Co. to facilitate periodic inventory checks on school supplies and equipment. Permanently dyed and etched, the tags are backed with a durable adhesive for attaching them to any surface.

For more information, circle number 870 on the Reader Service Card.

■ ■ ■

Multi-purpose slicer

A positive-angle feed-through that accommodates meats, cheeses and other foods up to 12 inches in width or 7½ inches in diameter is a feature of a new slicer now being introduced by Hobart Mfg. Co. The unit becomes multi-purpose through the use of interchangeable food chutes and adjustable fences which permit random slicing of fruits, vegetables and meats in much greater production. It has a neon light "on" indicator and a totally enclosed, one-quarter horsepower motor. Other features: easy accessibility for cleaning both sides of the knife, anodized aluminum for all parts in contact with food, ribbed feed trough and gauge plate, knife edge guard, feed grip and removable prongs to hold odd-shaped pieces firmly during slicing.

For more information, circle number 847 on the Reader Service Card.

■ ■ ■

Rust remover

A new chemical for the removal—without scouring—of rust stains from sinks, tubs and bowls is being marketed by Nalco Chemical Co. It has a rapid chemical action that removes

stains without damage to porcelain finishes, by converting brown iron oxide to colorless, easily rinsed soluble iron. It will not etch metals or metal plating, so it is effective on chrome, steel and iron surfaces as well.

For more information, circle number 871 on the Reader Service Card.

■ ■ ■

High strength flooring

A flooring material that combines the beauty of terrazzo floors with extreme corrosion resistance and high

strength is now available from Ceilcote Co. Called Corocrete Terrazzo Flooring, the new material is physically superior to ordinary terrazzo and concrete floors because it is specially treated to provide maximum resistance to thermal shock and impact—two common causes of damage. Silica or marble chips give the desired terrazzo effect. Chips come in a choice of black, green, red, white, tan or pink set against a black, white, red or green background. The material is mixed by simply blending the liquid, aggregate and hardener in an ordinary concrete mixer. Application is by



Maine Township High School, serving the Chicago suburb of Park Ridge, Illinois.



Here is the Conn Organ that won the tone contest at Maine Township High School.

Only Conn Passed the "Listening Test" At Maine Township High School!

When a school needs an organ for their auditorium, how do they go about choosing the *right* one? Here's what an active music parents group did at Maine Township High School, which serves the Chicago suburb of Park Ridge.

After raising the necessary funds, this enterprising group decided to hold a "Listening Test" to determine which make of organ would best serve their needs.

A Conn Organ was chosen to compete with three other makes of organs in a side-by-side comparison test. When all the votes were in and

tallied, the results showed Conn Organ to be superior. That's why Maine Township High School decided on a Conn for their extensive musical program.

There is a Conn Organ to meet every requirement. If you are considering the purchase of an organ for your school, talk to your Conn Organ dealer about it. He will be glad to discuss your particular requirements. And he can arrange monthly payments that are surprisingly low.

If you prefer to write for more information, here is our address: Conn Organ Corp., Elkhart, Indiana.

There is a noticeable difference in a **CONN ORGAN**

(Circle number 714 for more information)



The califone MASTER Model 75-T TAPE RECORDER

The range of capabilities offered by the Califone MASTER Tape Recorder Model 75-T far exceeds any other recorder made today for the school field. Following are outstanding features of this unique model—MAKES SUPERIOR MASTER TAPES...PLAYS MASTER TAPES THROUGH HEADPHONES FOR UP TO 10 STUDENTS...PLAYS MASTER TAPES THROUGH SPEAKER FOR UP TO 500 PERSONS...PROVIDES MASTER FOR GROUP OF UP TO 10 "SLAVE" RECORDERS. The Califone MASTER was designed to provide ease and simplicity so that



(Circle number 750 for more information)



master tapes can be made in the classroom or teacher's study. Once made, the master tape may be played for up to 10 students for silent group listening through the 10 headphone output jacks, each outlet having its own volume control.

For use in full classroom or auditorium, the MASTER's 9-watt amplifier and heavy duty speaker will supply matchless sound reproduction of master tapes for up to 500 persons.

Excellent for "audio-passive" language study, the Califone MASTER may also be used as the "master" recorder for a complete portable language laboratory in conjunction with Califone's booth-type, portable tape recorder, the SOLITAIRE Model 72-T.

School Net Price of the MASTER Model 75-T is \$349.50. For further information, write Dept. SM-2.

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trowel or other cement finishing tools. The final terrazzo finish is achieved by grinding.

For more information, circle number 854 on the Reader Service Card.

■ ■ ■

Stairwell smoke screen

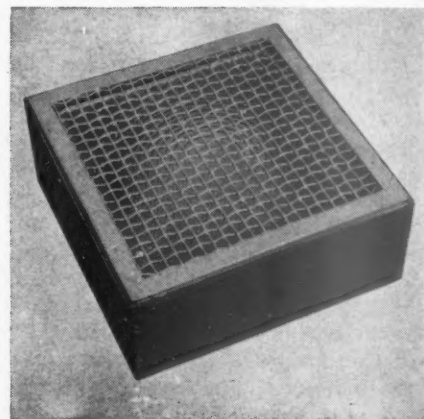
A protective barrier to smoke and flame set up as a shield at stairwells, Aetna Steel Products Corp.'s smoke screen requires no special engineering drawings or custom production. The unit, including hardware, can be ordered from the stock of standard Aetnapak components which can be shipped within 48 hours of receipt of order. Installation is rapid, with a minimum of debris, since the screen can be delivered to a job site already set up in frame sections.

For more information, circle number 851 on the Reader Service Card.

■ ■ ■

Tamperproof light fixture

A vandal-proof light fixture that accommodates up to two 100-watt "A" lamps in its double 14-gauge steel housing has been developed by Light & Power Utilities Corp. Steel mesh is welded to the outer housing



to protect the lens against vandalism. Theft is prevented, too, by spanner-head screws requiring a special screw driver for access to the lamps. Other safety items include a shock-absorbing foam rubber gasket for seating the lens, fiberglass insulation between the fixture and the ceiling and a safety chain to hold the outer steel housing to the inner housing to facilitate relamping. All component parts are phosphate-coated for rust prevention and better adhesion of the baked synthetic enamel finish, available in assorted colors.

For more information, circle number 861 on the Reader Service Card.

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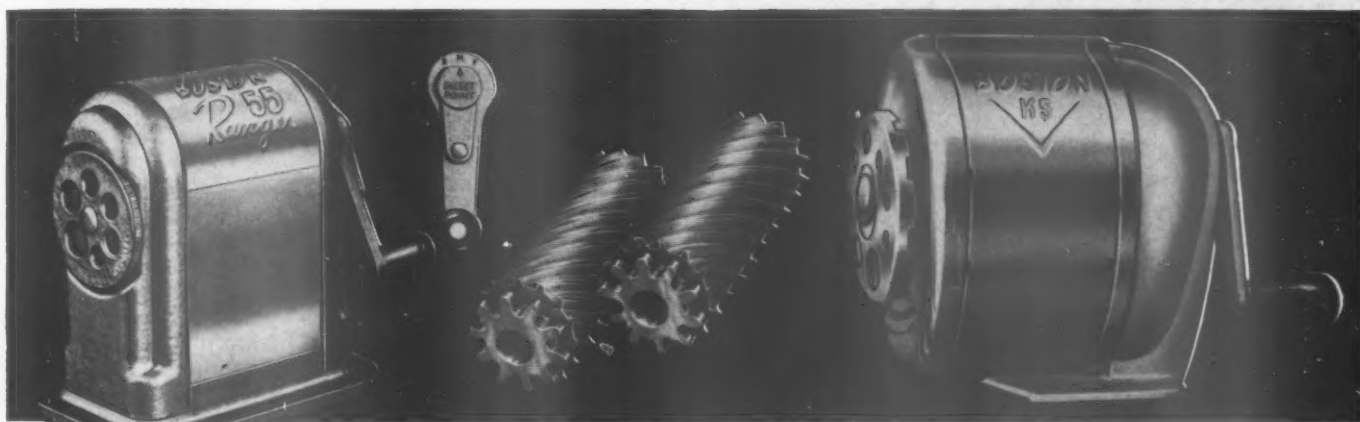


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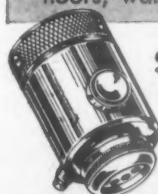
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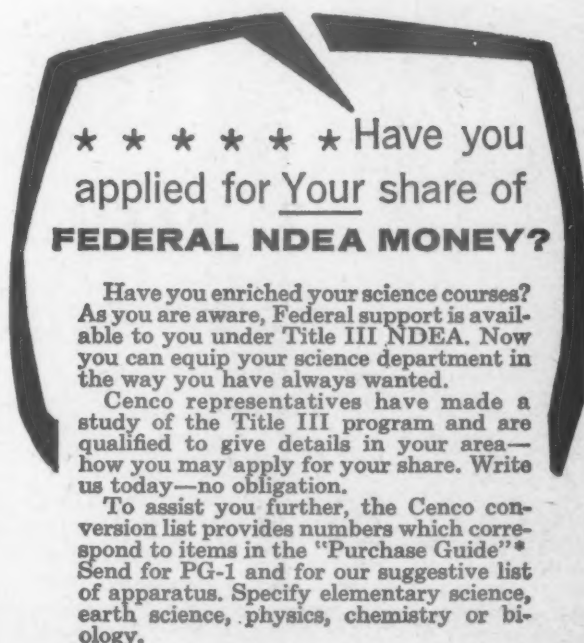
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(Circle number 701 for more information)



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